

$$\begin{array}{r} 15 \\ \times 8 \\ \hline 120 \\ 150 \\ \hline 165 \end{array}$$

Week 1 - Day 1

# Why Did the Snail Have an "S" Painted on His VW?

Do each exercise below and find your answer in the corresponding set of answer boxes. Print the letter of that exercise in the box containing the answer.

- (Y)  $(-4)(3) = -12$
- (E)  $(-10)(4) = -40$
- (E)  $(-5)(-8) = 40$
- (S)  $-12(-1) = 12$
- (O)  $-9 \cdot 7 = -63$
- (E)  $(8)(-8) = -64$
- (R)  $-12(-4) = 48$
- (N)  $(-5)20 = -100$
- (O)  $16(-3) = -48$
- (V)  $(-50)(-2) = 100$

- (L)  $-3 \cdot 4 \cdot 2 = -24$
- (O)  $(-4)(-5)(-6) = -120$
- (O)  $(-3)(-4)(2) = 24$
- (W)  $(-9)(4)(-10) = 360$
- (U)  $5(-1)(12) = -60$
- (S)  $(5)(3)(-11) = -165$
- (D)  $5(-1)(-12) = 60$
- (T)  $(-15)(-2)4 = 120$
- (U)  $(-3)(-3)(-3) = -27$
- (H)  $(-90)(-90)(0) = 0$

12	-48	-64	100	-40	48	-12	-63	-100	40	360	24	-27	-24	60	-165	0	-120	-60	120
S	O	E	V	E	R	Y	O	N	E	W	O	H	L	D	S	H	O	L	T

- (E)  $(-40)(60) = -2400$
- (H)  $(-7)(6)(-2) = 84$
- (T)  $(-80)(-20) = 1600$
- (L)  $3(-25)(-2) = 150$
- (O)  $2(-360) = -720$
- (S)  $(-2)(-4)8 = 64$
- (T)  $(-4)(-4)(-4) = -64$
- (O)  $-4 \cdot 7 \cdot 3 = -84$
- (A)  $(8)(-1)(12) = -96$
- (K)  $(10)(10)(-16) = -1600$

- (A)  $(-5)(3)(-4)(10) = 600$
- (O)  $(6)(-2)(-10)(-5) = -600$
- (R)  $(3)(3)(-4)(20) = -720$
- (C)  $(-5)(-40)(-4)(-1) = 800$
- (G)  $(-80)(3)(-1)(3) = 720$



150	-84	-720	-1600	-96	1600	-64	84	-2400	64	800	600	-720	720	-600
L	O	O	K	A	T	T	H	E	S	C	A	R	G	O

16/35

$$\begin{array}{r} 2 \\ 16 \\ \times 4 \\ \hline 64 \end{array}$$



# IT'S FUN, SUM-TIMES



Do each exercise below and find your answer in the code above that column of exercises. Each time the answer appears, write the letter of the exercise above it. Keep working and you will discover two "punny" answers!

KEY

## When Was the 300-lb Wrestler on Television?

*Just before the set came in*

$$\frac{J}{-64} \frac{U}{24} \frac{S}{4} \frac{T}{10} \frac{B}{-1} \frac{E}{2} \frac{F}{14} \frac{O}{66} \frac{R}{-1} \frac{E}{4} \frac{T}{-6} \frac{H}{-1} \frac{E}{-1}$$

$$\frac{S}{24} \frac{E}{-1} \frac{T}{4} \frac{C}{-22} \frac{A}{-60} \frac{V}{0} \frac{E}{-1} \frac{D}{-7} \frac{I}{-20} \frac{N}{-5}$$

- (H)  $-9 + 3 = -6$
- (A)  $-5 \cdot 12 = -60$
- (C)  $20 + (-6) = 14$
- (S)  $-3(-8) = 24$
- (I)  $-7 + (-13) = -20$
- (R)  $-2(3)(-11) = 66$
- (D)  $-9 + (-5) + 7 = -7$
- (J)  $(-4)^3 = -64$
- (C)  $(-2)(5) + (-3)(4) = -22$
- (B)  $(3)(-2) + (-4)(-4) = 10$
- (N)  $(-1)(-9) + (2)(-7) = -5$
- (T)  $(4)(5) + (-8)(2) = 4$
- (U)  $(8)(-5) + (-7)(3) = -61$
- (E)  $(-2)(-4) + (-3)(3) = -1$
- (F)  $(-6)(9) + (-8)(-7) = 2$
- (V)  $(+2)(-12) + (3)(8) = 0$

10

Week 1. Day 2

## Why Does a Lawn Mower Live Such a Hard Life?

*It always gets pushed around*

$$\frac{I}{16} \frac{T}{-2} \frac>A{-9} \frac>L{-4} \frac>W{400} \frac>A{-9} \frac>Y{-24} \frac>S{-28} \frac>G{-8} \frac>E{-18} \frac>I{-2} \frac>S{-28}$$

$$\frac>P{50} \frac>W{-28} \frac>S{21} \frac>H{-18} \frac>E{-26} \frac>D{-9} \frac>A{15} \frac>R{250} \frac>O{-54} \frac>U{-26} \frac>N{-26}$$

- (V)  $-4 + 12 + (-7) = 1$
- (X)  $(2)(-3)(4) = -24$
- (E)  $-6 + (-6) + (-6) = -18$
- (V)  $(-2)^4 = 16$
- (D)  $(-3)^3 + (-1)^2 = -26$
- (L)  $20 + (-7) + (-17) = -4$
- (Q)  $(-5)^3(-2) = 250$
- (H)  $30 + (-12) + 3 = 21$
- (T)  $-8 + 3 + (-8) + 11 = -2$
- (W)  $(-4)(5)(-10)(2) = 400$
- (M)  $(-3)(2)(-1)(-9) = -54$
- (G)  $-3 + (-7) + (-7) + 9 = -8$
- (R)  $(-5)(-7) + (10)(-2) = 15$
- (S)  $(4)(-6) + (2)(-2) = -28$
- (P)  $(-5)(-5) + (-5)(-5) = 50$
- (A)  $(2)(-8) + (-1)(-7) = -9$

10

Week 1 - Day 3

# DAFFYNYTION DECODER

1. Lumberjack: *A wooden pancake*

A	W	O	O	D	E	N	P	A	N	C	A	K	E
-22	11	-2	-2	-34	-17	25	13	-22	25	-144	-22	1328	-17

2. Quartz watch: *Looking at milk*

L	O	O	K	I	N	G	A	T	M	I	L	K
336	-2	-2	1328	49	25	-12	-22	-29	18	49	336	1328

3. First aid instructor: *Wizard of gauze*

W	I	Z	A	R	D	O	F	G	A	U	Z	E
11	49	-45	-22	-5	-34	-2	-54	-12	-22	-360	-45	-17

TO DECODE THESE THREE DAFFYNYTIONS:

Do each exercise below and find your answer in the code. Each time the answer appears in the code, write the letter of that exercise above it. Keep working and you will decode "define" print.

(D)  $-12 + (-30) + 8 = -42 + 8 = -34$

(U)  $(-4)(5)(-2)(-9) = (-20)(18) = -360$

(E)  $28 - 45 = 28 + (-45) = -17$

(G)  $-24 - (-50) - 38 = -24 + 50 - 38 = -12$

(F)  $-36 - 18 = -36 + (-18) = -54$

(M)  $\frac{-68 - 112}{-10} = \frac{-180}{-10} = 18$

(I)  $-7(-10 + 3) = -7(-7) = 49$

(Z)  $(-1)(9) + (6)(-6) = -9 + (-36) = -45$

(R)  $\frac{-3(20)}{12} = \frac{-60}{12} = -5$

(K)  $-4325 + 6128 - 475 = 1803 - 475 = 1328$

(A)  $(-4)(7) + (-2)(-3) = -28 + 6 = -22$

(C)  $(36 - 24)(24 - 36) = (12)(-12) = -144$

(P)  $\frac{14 - 40}{-2} = \frac{-26}{-2} = 13$

(O)  $\frac{-6 - 3 + 15 - 2}{4 - 14 - 1 + 9} = \frac{-9 + 13 - 2}{-10 + 9} = \frac{2}{-1} = -2$

(L)  $(-6)(7)(-8) = 336$

(N)  $3(13) + (-7)(2) = 39 + (-14) = 25$

(T)  $\frac{-48}{3} + \frac{-65}{5} = -16 + (-13) = -29$

(W)  $\frac{-38}{-2} + \frac{-96}{12} = 19 + (-8) = 11$

$\frac{\square}{18}$



# What Happened to the Dallas Sheep Rancher Who Claimed He Was Going to Start Selling Wool in 47 Different Colors?



Do each exercise below and find your answer in one of the boxes at the bottom of the page. Write the letter of the exercise in that box. (To help you locate your answer quickly, the answers are arranged in order from smallest to largest.)



(E)  $-8 - 3 = -11$

(A)  $4 + (+1) = 5$

(H)  $2 - 11 = -9$

(T)  $-12 + (+14) = 2$

(E)  $30 + (-8) = 22$

(B)  $3 + (+6) = 9$

(A)  $-11 - 7 = -18$

(I)  $20 - 25 = -5$

(E)  $-36 + (+6) = -30$

(N)  $13 + (+4) = 17$

(R)  $-3 + 16 = 13$

(E)  $-5 - 16 = -21$

(A)  $30 + (3 - 5) = 28$

(D)  $2 + (1 - 9) = 10$

(S)  $(-22 + 33) - 11 = 0$

(E)  $-10 + (8 - 10) = -8$

(I)  $(6 - 1) + (-12 + 2) = 15$

(H)  $(-15 - 15) - (15 - 13) = -32$

(E)  $(3 - 7) + (9 - 12) = -1$

(S)  $(-25 + 50) + (-4 - 6) = 35$

(T)  $-2 - 5 - 3 = -10$

(B)  $-18 + 14 - 2 = -6$

(M)  $5 - 12 - 7 = -14$

(E)  $100 - 97 + 9 = 12$

(G)  $10 - 4 - 4 - 4 = -2$

(B)  $-26 - 12 + 36 - 12 = -24$

(T)  $-3 + 40 - 10 - 8 = 19$

(G)  $-16 + 9 - 2 + 6 = -3$

(C)  $-5 - 5 - 5 - 5 = -20$

(X)  $(-3 - 12) + (+40) = 25$

(L)  $2 + (32 - 34) = 4$

(M)  $10 + (-6 - 3 + 4) = 7$

(Y)  $(-3 + 8 - 5) + (+11) = 11$

Week 1 - Day 4

-32	-24	-21	-20	-18	-14	-11	-10	-9	-8	-6	-5	-3	-2	-1	0	2
H	E	B	E	C	A	M	T	H	E	B	I	G	G	E	S	T
4	5	7	9	10	11	12	13	15	17	19	22	25	28	35		
L	A	M	B	D	Y	E	R	I	N	T	E	X	A	S		

33

## Extra Practice - Order of Operations

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Evaluate each expression.

1)  $2 \times 4 \div 4$

2

2)  $4 \times 3 \times 5$

60

3)  $6 \times 18 \div 6$

18

4)  $3 \times 2^2$

12

5)  $6 \div (3 + 2 - 3)$

3

6)  $((4)(2)) \div 2$

4

7)  $2^2 \div (3 + 1)$

1

8)  $((3)(3)(2)) \div 3$

6

9)  $(10 + 9 - 1 - 2) \div 4$

4

10)  $4 - 1 - (3 - 1) + 3$

4

# Week 2 Day 1

$$11) 10 \div 5 - (3 - 3)^3$$

2

$$12) (4 \cdot 2) \div (2 + 2 - 2)$$

4

$$13) (2 + 2) \div 2 + 2 + 4 - 1$$

7

$$14) 3 + (15 - 3) \div (2 + 4 - 4)$$

9

$$15) ((12 - 2)(2)) \div 5$$

4

$$16) (5)(5) + 5 - 4 - (4 - 3)$$

25

$$17) 3 \times (12 - (11 - 5)) \div (1 + 5) \times 2$$

6

$$18) (4 \div 4 + 2)(5 - 1 - (2 + 1))$$

3

$$19) 6 \times 4 + 3 - (3 \times 2 + 2) \div 2$$

23

$$20) 5 - (4 - 2 \times 2 + 1^2 \times 2)$$

3

$\frac{\square}{20}$

Week 2 - Day 2

Name: KEY

### Order of Operations Magic Square

Solve each of the problems in the boxes, placing the correct answer on the line given. When the puzzle is completed correctly, the sum of each row and column should all add up to 34. Place the sum on the line to the right and bottom of the square.

$\begin{array}{l} 10 - 8 + 2 \\ 2 + 2 \\ \hline 4 \end{array}$	$\begin{array}{l} (1 + 6) \times 2 \\ 7 \times 2 \\ \hline 14 \end{array}$	$\begin{array}{l} (3 \times 3) + (2 \times 3) \\ 9 + 6 \\ \hline 15 \end{array}$	$\begin{array}{l} 3^2 - 8 \\ 9 - 8 \\ \hline 1 \end{array}$	$\underline{34}$
$\begin{array}{l} 20 \div 2 - 1 \\ 10 - 1 \\ \hline 9 \end{array}$	$\begin{array}{l} 3 + 20 \div 5 \\ 3 + 4 \\ \hline 7 \end{array}$	$\begin{array}{l} \frac{3+9}{5-3} = \frac{12}{2} \\ \hline 6 \end{array}$	$\begin{array}{l} 3 \times (3 + 1) \\ 3 \times 4 \\ \hline 12 \end{array}$	$\underline{34}$
$\begin{array}{l} 17 - 7 - 10 \div 2 \\ 17 - 7 - 5 \\ 10 - 5 \\ \hline 5 \end{array}$	$\begin{array}{l} 3^2 + (4 - 2) \\ 9 + (2) \\ \hline 11 \end{array}$	$\begin{array}{l} 4^2 - (2 \times 3) \\ 16 - 6 \\ \hline 10 \end{array}$	$\begin{array}{l} (1 + 3)^2 \div 2 \\ 4^2 \div 2 \\ 16 \div 2 \\ \hline 8 \end{array}$	$\underline{34}$
$\begin{array}{l} (8 - 2 \times 2)^2 \\ (8 - 4)^2 \\ 4^2 \\ \hline 16 \end{array}$	$\begin{array}{l} \frac{6+2}{10-3 \times 2} \\ \frac{8}{10-6} = \frac{8}{4} = 2 \\ \hline 2 \end{array}$	$\begin{array}{l} 10 - 14 \div 2 \\ 10 - 7 \\ \hline 3 \end{array}$	$\begin{array}{l} (2 \times 5) + (7 - 4) \\ 10 + 3 \\ \hline 13 \end{array}$	$\underline{34}$
$\underline{34}$	$\underline{34}$	$\underline{34}$	$\underline{34}$	



# Week 2 - Day 2

KEY

## Order of Operations: Find the Error

Circle any errors in your friend's work. Write your full steps as you correctly simplify each expression.

Friend's Work	Your Work
$\begin{aligned} & \textcircled{85 - 7} + 13 - 10 \\ & 85 - 20 - 10 \\ & \underline{65 - 10} \\ & 55 \end{aligned}$ <p><i>should +/- from left to right</i></p>	$\begin{aligned} & 85 - 7 + 13 - 10 \\ & \underline{78} + 13 - 10 \\ & 91 - 10 \\ & \textcircled{81} \end{aligned}$

Friend's Work	Your Work
$\begin{aligned} & 70 \div 5 \cdot 2 + 16 - 1 \\ & \underline{70 \div 10} + 16 - 1 \\ & 7 + 16 - 1 \\ & \underline{23 - 1} \\ & 22 \end{aligned}$ <p><i>÷/· are left to right</i></p>	$\begin{aligned} & 70 \div 5 \cdot 2 + 16 - 1 \\ & \underline{14} \cdot 2 + 16 - 1 \\ & 28 + 16 - 1 \\ & 44 - 1 \\ & \textcircled{43} \end{aligned}$

Friend's Work	Your Work
$\begin{aligned} & 25 + 6 \cdot 2 - \textcircled{(8 + 4)} \div 4 \\ & 25 + 12 - 8 + 4 \div 4 \\ & \underline{25 + 12} - 8 + 1 \\ & 37 - 8 + 1 \\ & \underline{29 + 1} \\ & 30 \end{aligned}$ <p><i>parentheses first</i></p>	$\begin{aligned} & 25 + 6 \cdot 2 - (8 + 4) \div 4 \\ & 25 + 12 - \underline{12} \div 4 \\ & 25 + 12 - 3 \\ & 37 - 3 \\ & \textcircled{34} \end{aligned}$

Friend's Work	Your Work
$\begin{aligned} & (24 - 10) + 3^2 \cdot 8 \\ & 14 + \textcircled{3^2} \cdot 8 \\ & 14 + 6 \cdot 8 \\ & \underline{14 + 48} \\ & 62 \end{aligned}$ <p><i>3<sup>2</sup> = 9</i></p>	$\begin{aligned} & (24 - 10) + 3^2 \cdot 8 \\ & 14 + 9 \cdot 8 \\ & 14 + 72 \\ & \textcircled{86} \end{aligned}$

□  
8



# Why Should You Look Out for a Pig That Knows Karate? KEY

Simplify or evaluate each expression below, as directed. Find your answer in the corresponding answer column. Write the letter of the exercise in the box that contains the number of the answer.



### SIMPLIFY:

~~1~~  $4 \cdot 9 + 1 = 36 + 1 = 37$

~~2~~  $6 + 7 \cdot 10 = 6 + 70 = 76$

$42 - 2 \cdot 7 = 42 - 14 = 28$

$8 + 50 \div 2 = 8 + 25 = 33$

$(10)(3) - 4 = 30 - 4 = 26$

$2 \cdot 8 + 3 \cdot 5 = 16 + 15 = 31$

$\frac{60}{3} - (2)(4) = 20 - 8 = 12$

$5 \cdot 12 + \frac{32}{16} = 60 + 2 = 62$

$3 + 2 \cdot 5 \cdot 8 = 3 + 80 = 83$

$(4)(6)(3) - 20 + 1 = 72 - 20 + 1 = 53$

$18 \div 2 \times 3 = 9 \times 3 = 27$

$3 \cdot 3 + 4 \cdot 4 - 5 \cdot 5 = 9 + 16 - 25 = 0$

### Answers:

$7$  62 T

$22$  27 O

$9$  37 I

$5$  31 G

$17$  33 O

$2$  76 T

$15$  12 A

$18$  0 R

$12$  83 Y

$14$  28 U

$1$  53 I

$11$  26 E

Week 2 - Day 3

EVALUATE if  $a = 2$ ,  $b = 3$ ,  $x = 5$ ,  $y = 8$ , and  $w = 20$ :

$1$   $4x + 7 = 4(5) + 7 = 20 + 7 = 27$

$10$   $1 + 6y = 1 + 6(8) = 1 + 48 = 49$

$16$   $9 - 2b = 9 - 2(3) = 9 - 6 = 3$

$8$   $8x + 3y = 8(5) + 3(8) = 40 + 24 = 64$

$20$   $a + bw = 2 + (3)(20) = 2 + 60 = 62$

$13$   $aw - by = (2)(20) - (3)(8) = 40 - 24 = 16$

$21$   $b + \frac{w}{x} = 3 + \frac{20}{5} = 3 + 4 = 7$

$4$   $27$  I

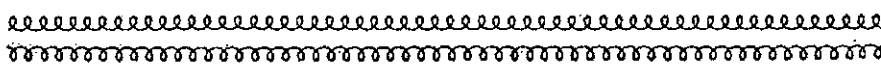
$23$   $\frac{bw}{x} - a + 7 = \frac{(3)(20)}{5} - 2 + 7 = 12 - 2 + 7 = 17$

$3$   $62$  M

$6$   $3$  H

$19$   $36 - 4ab = 36 - 4(2)(3) = 36 - 24 = 12$

$5 + 3x - \frac{a}{w} = 5 + 3(5) - \frac{20}{2} = 5 + 15 - 10 = 20 - 10 = 10$



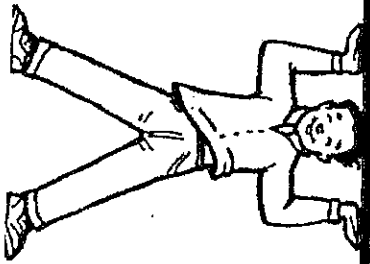
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
I	T	M	I	G	H	T	G	I	V	E	Y	O	U	A	op	O	R	K	ae	H	O	P

It might give you a pork chop!

$\frac{24}{\frac{3}{72}}$

# When Might You Think You're Built Upside Down?

KEY



Do each exercise below and find your answer in one of the boxes at the bottom of the page. Write the letter of the exercise in that box. (To help you locate each answer quickly, the answers are arranged in order from smallest to largest.)

- Week 2-Day 4
- $(S) -5(-1+6) -5(5) = -25$  (N)  $(-3)^2(-2)^3 (9)(8) = -72$  (N)  $(-3)(-12)(-1) - 36$  (E)  $(-7)(5)(-4) (-7)(-20) = 140$   
 $(U) 8 \frac{(-3)}{-6} = \frac{-24}{-6} = 4$  (D)  $\frac{-6 + (-3) + (-7)}{4} = \frac{-16}{4} = -4$  (F)  $\frac{-60}{-3} + \frac{-48}{4} = 20 - 12 = 8$  (U)  $\frac{-9 \cdot 5}{3} = -\frac{45}{3} = -15$   
 $(E) \frac{-380}{38} + \frac{380}{-38} = -10 + \frac{-10}{-20} = -10$  (S)  $-1(\frac{6}{-8}) + 8(-2) = -10$  (Y)  $(-2)(-3) + (-1)(7) = +6 - 7 = -1$   
 $(M) (2)(-2) + (5)(6) = 26$  (R)  $-8 + 17 + (-3) = -11 + 17 = 6$  (E)  $(-9)^2(-1)^5 = (81)(-1) = -81$  (Y)  $(-4)^3 = -64$   
 $(E) \frac{-15}{15} + \frac{150}{15} = -1 + 10 = 9$  (R)  $\frac{-72}{8} + \frac{-56}{7} = -9 + -8 = -17$  (H)  $(-8)(-1)(4)(-3) = -96$  (S)  $\frac{(-4)(-25)}{5} = 20$   
 $(U) (-1)(-7)^2 (-1)(49) = -49$  (O)  $(-3 \cdot 7) + (-2 \cdot 4) = -29$  (T)  $\frac{9(-4)}{-2} = \frac{-36}{-2} = 18$  (N)  $\frac{-19 + (-11)}{6} = \frac{-30}{6} = -5$   
 $(L) (-3)(7)(-2)(5)(-2)(-10) = 210$  (A)  $\frac{170}{-10} + \frac{96}{12} = -17 + 8 = -9$  (N)  $\frac{-32}{2} + \frac{-75}{-15} = -16 + 5 = -11$  (R)  $80 + (-50) + (-70) = 80 - 120 = -40$   
 $(E) (-2)^4 = 16$  (L)  $(-30)^2 = 900$  (O)  $-7 + 8 + (-9) + 10 = -16 + 18 = 2$  (O)  $-2(-5)(-6) = (10)(-6) = -60$

	-530	-96	-81	-72	-64	-60	-49	-40	-36	-29	-25	-20	-17	-15	-11	-10	
W	H	E	N	Y	O	U	R	R	N	O	S	E	R	U	N	S	
	-9	-5	-4	-1	2	4	6	8	9	16	18	20	26	140	210	900	
A	N	D	Y	O	U	R	R	F	E	E	T	S	M	E	L	L	

When your nose runs and your feet smell

date \_\_\_\_\_

section \_\_\_\_\_

Week 3 - Day 1  
Name \_\_\_\_\_

ID: 1

**CLASSWORK - Combining Like Terms & Distributive Property**

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**Combine like terms to simplify each expression.**

1)  $-4x + 5x$   $x$

2)  $1 + 5v + v - 6$   $-5 + 6v$

3)  $4n + 4 + 1 + 3n$   $7n + 5$

4)  $11a + 11a$   $22a$

5)  $-2x - 8 - 7x + 2$   $-9x - 6$

6)  $7v + 6v$   $13v$

7)  $-8x - 10x$   $-18x$

8)  $6 - 7n - 2n - 8$   $-2 - 9n$

9)  $2k - k$   $k$

10)  $-p - 11 + 3$   $-p - 8$

11)  $9n + 3n$   $12n$

12)  $12x + 11 - 4$   $12x + 7$

**Use Distributive Property.**

13)  $3(-7 - 8n)$   $-21 - 24n$

14)  $-8(1 + 5m)$   $-8 - 40m$

15)  $8(r + 1)$   $8r + 8$

16)  $8(7x + 8)$   $56x + 64$

17)  $2(6n - 8)$   $12n - 16$

18)  $-3(8 - b)$   $-24 + 3b$

19)  $-5(8v - 2)$   $-40v + 10$

20)  $-2(x - 5)$   $-2x + 10$

21)  $-(3a - 3)$   $-3a + 3$

22)  $-2(7 - 2n)$   $-14 + 4n$

23)  $-8(5 - 3v)$   $-40 + 24v$

24)  $-7(6x - 3)$   $-42x + 21$

**First, use Distributive Property, then Combine Like Terms to simplify each expression.**

25)  $-n + 4(n + 1)$

$3n + 4$

26)  $-3(1 - 3x) + 2x$

$-3 + 11x$

27)  $-2(-3k + 4) - 7$

$6k - 15$

28)  $-3p - (-8 + 4p)$

$-7p + 8$

29)  $-4 + 6(-4x + 3)$

$14 - 24x$

30)  $3n + 3(1 + 8n)$

$27n + 3$

31)  $-2 + 5(4 + 3r)$

$18 + 15r$

32)  $-1 + 3(m + 4)$

$11 + 3m$

33)  $-(-n + 2) - 2n$

$-n - 2$

34)  $-3(5 + 2x) - 7$

$-22 - 6x$

□  
34

# Week 3 - Day 2

## What Happened to Ray Floob After He Fell Off the Empire State Building?

Simplify each expression below. Circle the letter of each answer. Then rearrange the circled letters in each section to make a word. Write the words in order in the boxes at the bottom of the page. You will find the answer to the title question.

<p>① <math>3x + 2(5x - 7)</math> <math>13x - 14</math></p>	<p><input type="checkbox"/> S <math>20x - 3</math></p>	<p><input checked="" type="checkbox"/> Y <math>20x - 18</math></p>
<p>② <math>9 - 3(2x - 4)</math> <math>-6x + 21</math></p>	<p><input checked="" type="checkbox"/> E <math>13x - 14</math></p>	<p><input type="checkbox"/> N <math>5x + 11</math></p>
<p>③ <math>8x - 6(3 - 2x)</math> <math>20x - 18</math></p>	<p><input type="checkbox"/> T <math>5x + 15</math></p>	<p><input checked="" type="checkbox"/> H <math>-6x + 21</math></p>
<p>④ <math>-5 + 5(x + 4)</math> <math>5x + 15</math></p>	<p><input type="checkbox"/> O <math>14n + 36</math></p>	<p><input type="checkbox"/> S <math>19n + 36</math></p>
<p>⑤ <math>4(6n + 9) - 10n</math> <math>14n + 36</math></p>	<p><input type="checkbox"/> E <math>-12n + 13</math></p>	<p><input checked="" type="checkbox"/> N <math>-12n + 17</math></p>
<p>⑥ <math>14 - 3(4n - 1)</math> <math>-12n + 17</math></p>	<p><input checked="" type="checkbox"/> W <math>8n + 32</math></p>	<p><input type="checkbox"/> T <math>8n - 1</math></p>
<p>⑦ <math>-8n - 8(-4 - 2n)</math> <math>8n + 32</math></p>	<p>⑧ <math>7k - 2(3k + 1) - 9</math> <math>k - 11</math></p>	<p><input checked="" type="checkbox"/> C <math>-13k + 34</math></p>
<p>⑨ <math>-6 + 5(8 - k) - 8k</math> <math>-13k + 34</math></p>	<p><input type="checkbox"/> A <math>-7k + 37</math></p>	<p><input type="checkbox"/> I <math>-7k + 30</math></p>
<p>⑩ <math>k + 1 - 4(2k - 9)</math> <math>-7k + 37</math></p>	<p><input type="checkbox"/> K <math>2k - 4</math></p>	<p><input checked="" type="checkbox"/> L <math>k - 11</math></p>
<p>⑪ <math>-10k - 3 + 2(5 + 6k)</math> <math>2k + 7</math></p>	<p><input type="checkbox"/> A <math>14x + 30</math></p>	<p><input type="checkbox"/> R <math>6x + 52</math></p>
<p>⑫ <math>8 + 9x + 4(11 - 2x)</math> <math>x + 52</math></p>	<p><input checked="" type="checkbox"/> H <math>3x + 21</math></p>	<p><input checked="" type="checkbox"/> M <math>x + 52</math></p>
<p>⑬ <math>-4(-2x - 7) + 6x - 7</math> <math>14x + 21</math></p>	<p><input type="checkbox"/> T <math>3x + 6</math></p>	<p><input checked="" type="checkbox"/> I <math>14x + 21</math></p>
<p>⑭ <math>9 - 3(-4 + 3x) + 12x</math> <math>3x + 21</math></p>	<p><input type="checkbox"/> A <math>12y - 4</math></p>	<p><input checked="" type="checkbox"/> X <math>12y - 2</math></p>
<p>⑮ <math>5(2y - 4) + 2(y + 9)</math> <math>12y - 2</math></p>	<p><input type="checkbox"/> W <math>-42u + 9</math></p>	<p><input checked="" type="checkbox"/> Y <math>-42u + 42</math></p>
<p>⑯ <math>-4(3u - 1) + 7(3 - 2u)</math> <math>-26u + 25</math></p>	<p><input type="checkbox"/> S <math>13u - 12</math></p>	<p><input type="checkbox"/> D <math>-5u + 25</math></p>
<p>⑰ <math>6(-5u + 1) - 3(4u - 12)</math> <math>-42u + 42</math></p>	<p><input checked="" type="checkbox"/> R <math>13u - 7</math></p>	<p><input checked="" type="checkbox"/> A <math>-26u + 25</math></p>
<p>⑱ <math>3(-u - 5) + 8(2u + 1)</math> <math>13u - 7</math></p>		

T H E Y N O W C A L L H I M X R A Y

□  
18

# What Happened to the Snowman During the Heat Wave?

Simplify each expression below and find your answer in the corresponding answer column. Write the letter of that exercise in the box that contains the number of the answer.

- (E)  $6x + 9 + 2x$     $8x + 9$    (9)  $9x + 8$    O
- (S)  $7 + 3x + 4$     $3x + 11$    (4)  $6x$    A
- (O)  $8 + 2x + 7x$     $9x + 8$    (6)  $7x + 7$    E
- (L)  $8x + 7 + 3x + 2$     $11x + 9$    (15)  $8x + 9$    E
- (A)  $5x + x$     $6x$    (19)  $11x + 9$    L
- (F)  $9x + 8 + x$     $10x + 8$    (25)  $3x + 11$    S
- (E)  $6 + 4x + 1 + 3x$     $7x + 7$    (28)  $10x + 8$    F

- (L)  $4x + 2y + 7 + 4x + 3y$     $8x + 5y + 7$    (1)  $12x + 17y + 14$
- (E)  $8y + 6 + 8x + y + 3$     $8x + 9y + 9$    (20)  $10x + 7y + 13$    O
- (D)  $7x + 4x + 6y + x + 9y$     $12x + 15y$    (13)  $8x + 9y + 9$    E
- (O)  $2x + 5 + 7y + 8x + 8$     $10x + 7y + 13$    (14)  $x + 6y + 7$    T
- (M)  $3y + 7 + 5y + y + 1$     $9y + 8$    (5)  $12x + 15y + 14$
- (H)  $6x + 6y + 6x + 7y + 4y$     $12x + 17y$    (10)  $9y + 8$    M
- (T)  $\frac{1}{2}x + \frac{1}{2}x + 6y$     $x + 6y$    (27)  $8x + 5y + 7$    L

- (O)  $3t + 4u + 6t$     $9t + 4u$    (11)  $7t + 13u$    P
- (A)  $9u + 4 + 8t + 3u$     $12u + 8t + 4$    (17)  $9t + 4u$    O
- (I)  $7 + u + 9t + 5u$     $6u + 9t + 7$    (24)  $16t + 4u$    M
- (P)  $6t + 4u + t + 9u$     $7t + 13u$    (7)  $8t + 12u + 4$    A
- (E)  $2t + 4 + 8u + 2t$     $4t + 6u + 4$    (23)  $9t + 6u + 7$    I
- (M)  $3u + 7t + 9t + u$     $4u + 16t$    (21)  $8t + u + 13$    F
- (F)  $8t + 1 + u + 12$     $8t + u + 13$    (2)  $4t + 8u + 4$    E

- (E)  $\frac{1}{2}n + 3w + \frac{1}{2}n + w + 1$     $4w$    (18)  $3n + 10w + 12$
- (M)  $n + 8w + 5w + 3 + 5w$     $18w + 12$    (26)  $n + 4w + 6$
- (O)  $4w + 5 + 3n + 6w + 7$     $10w + 3n + 12$    (22)  $n + 10w + 6$
- (C)  $2n + 4w + 5n + w + 9n$     $16n + 5$    (16)  $7n + 2w + 6$
- (H)  $w + w + n + 8w + 6$     $10w + n + 6$    (3)  $n + 18w + 3$    M
- (L)  $6n + 2n + 7w + 2 + 3n$     $11n + 7w + 2$    (12)  $11n + 7w + 2$    L
- (P)  $\frac{3}{2}w + 7n + \frac{1}{2}w$     $\frac{1}{2}w + 7n = 2wt + 2n$    (8)  $16n + 5w$    C

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
H	E	M	A	D	E	A	C	O	M	P	L	E	T	E	P	O	O	L	O	F	H	I	M	S	E	L	F

He made a complete fool of himself

Week 3 - Day 3

# Daffynition Decoder

1. Romantic:  $\frac{A}{11} \frac{N}{13} \frac{I}{8} \frac{I}{12} \frac{A}{11} \frac{L}{11} \frac{I}{8} \frac{A}{11} \frac{N}{13} \frac{I}{13} \frac{N}{10} \frac{S}{3} \frac{E}{5} \frac{C}{12} \frac{I}{12}$
2. American:  $\frac{A}{11} \frac{H}{2} \frac{A}{11} \frac{P}{9} \frac{Y}{9} \frac{C}{6} \frac{O}{5} \frac{N}{7} \frac{T}{13} \frac{A}{12} \frac{I}{11} \frac{N}{8} \frac{E}{13} \frac{R}{3} \frac{R}{4}$

For each exercise below, subtract the second polynomial from the first. Find your answer in the answer column and notice the letter next to it. Each time the exercise number appears in the code, write this letter above it. Keep working and you will decode the "de-fun-tions."

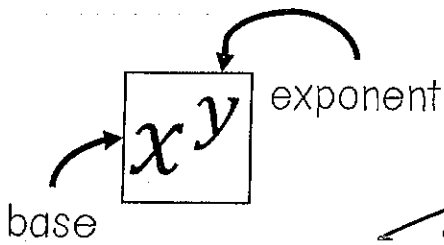
- ①  $(7x + 4) - (2x + 9)$   $7x + 4 - 2x - 9 = 5x - 5$
- ②  $(3x + 12) - (5x - 6)$   $3x + 12 - 5x + 6 = -2x + 18$
- ③  $(-4x^2 + 10) - (6x^2 - 9)$   $-4x^2 + 10 - 6x^2 + 9 = -10x^2 + 19$
- ④  $(2x^2 + 3x + 8) - (x^2 + 5x - 1)$   $2x^2 + 3x + 8 - x^2 - 5x + 1 = x^2 - 2x + 9$
- ⑤  $(-x^2 + 9x - 2) - (9x^2 - 4x + 4)$   $-x^2 + 9x - 2 - 9x^2 + 4x - 4 = -10x^2 + 13x - 6$
- ⑥  $(3x^2 + 7x + 1) - (8 + 5x + x^2)$   $3x^2 + 7x + 1 - 8 - 5x - x^2 = 2x^2 + 2x - 7$
- ⑦  $(4x^3 + 6x^2 - 8x) - (x^3 - 2x^2 + 12x)$   $4x^3 + 6x^2 - 8x - x^3 + 2x^2 - 12x = 3x^3 + 8x^2 - 20x$
- ⑧  $(x^3 + 2x^2 + 5x) - (3x^2 - x - 7)$   $x^3 + 2x^2 + 5x - 3x^2 + x + 7 = x^3 - x^2 + 6x + 7$
- ⑨  $(x^4 + 8x^2 - 1) - (x^2 - 3x^3 + x^4)$   $x^4 + 8x^2 - 1 - x^2 + 3x^3 - x^4 = 3x^3 + 7x^2 - 1$
- ⑩  $(5x^4 - 2x^2) - (3x - 2x^2 - 4x^3 + 6x^4)$   $5x^4 - 2x^2 - 3x + 2x^2 + 4x^3 - 6x^4 = -x^4 + 4x^3 - 3x$
- ⑪  $(3x^2 + 7xy - 2y^2) - (x^2 - 6xy + 2y^2)$   $3x^2 + 7xy - 2y^2 - x^2 + 6xy - 2y^2 = 2x^2 + 13xy - 4y^2$
- ⑫  $(-x^2 - 9xy + 5y^2) - (4x^2 - 2xy - y^2)$   $-x^2 - 9xy + 5y^2 - 4x^2 + 2xy - y^2 = -5x^2 - 7xy + 4y^2$
- ⑬  $(4x^2y - 3xy^2) - (3x^2y - 8xy^2)$   $4x^2y - 3xy^2 - 3x^2y + 8xy^2 = x^2y + 5xy^2$

Week 3 - Day 4

- Answers:
- ⑩ M  $-x^4 + 4x^3 - 7x^2$
  - ⑩ S  $-x^4 + 4x^3 - 3x$
  - ⑩ U  $3x^3 + 5x^2 + 7$
  - ⑩ L  $5x - 5$
  - ⑩ E  $-10x^2 + 19$
  - ⑩ F  $2x^2 + 2x - 19$
  - ⑩ C  $-10x^2 + 13x - 6$
  - ⑩ H  $-2x + 18$
  - ⑩ T  $-5x^2 - 7xy + 6y^2$
  - ⑩ O  $3x^3 + 8x^2 - 20x$
  - ⑩ P  $3x^3 + 7x^2 - 1$
  - ⑩ R  $x^2 - 2x + 9$
  - ⑩ A  $2x^2 + 13xy - 4y^2$
  - ⑩ N  $x^2y + 5xy^2$
  - ⑩ Y  $2x^2 + 2x - 7$
  - ⑩ B  $-5x^2 - 6xy + 7y^2$
  - ⑩ I  $x^3 - x^2 + 6x + 7$

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# EXPONENT RULES Notes Week 4 - Day 1



27

$$x^5 = \underline{x \cdot x \cdot x \cdot x \cdot x}$$

$$3^4 = \underline{3 \cdot 3 \cdot 3 \cdot 3} = \underline{81}$$

In an exponential expression, the **base** is the number that gets multiplied by itself. The **exponent** tells you the number of times to multiply the base by itself.

$$x^a \cdot x^b = x^{a+b}$$

$$x^3 \cdot x^4 = \underline{x^7} \quad p^2 \cdot p^{-1} = \underline{p^1}$$

$$y^{-6} \cdot y^{10} = \underline{y^4} \quad y^6 \cdot y^1 = \underline{y^7}$$

$$(x^a)^b = x^{a \cdot b}$$

$$(k^2)^3 = \underline{k^6} \quad (r^4)^9 = \underline{r^{36}}$$

$$(a^6)^{1/2} = \underline{a^3} \quad (p^3)^{1/3} = \underline{p^1}$$

$$\frac{x^a}{x^b} = x^{a-b}$$

$$\frac{x^4}{x^3} = \underline{x^{4-3}} = \underline{x^1} \quad \frac{x^5}{x^{-1}} = \underline{x^{5-(-1)}} = \underline{x^6}$$

$$\frac{x^9}{x^5} = \underline{x^{9-5}} = \underline{x^4} \quad \frac{x^3}{x^1} = \underline{x^{3-1}} = \underline{x^2}$$

$$(x \cdot y)^a = x^a \cdot y^a$$

$$(ab)^5 = \underline{a^5 b^5} \quad (p \cdot q)^4 = \underline{p^4 q^4}$$

$$(3x)^3 = \underline{3^3 x^3} = \underline{27x^3} \quad (-2y)^2 = \underline{(-2)^2 (y)^2} = \underline{4y^2}$$

$$\left(\frac{x}{y}\right)^a = \frac{x^a}{y^a}$$

$$\left(\frac{x}{y}\right)^4 = \underline{\frac{x^4}{y^4}} \quad \left(\frac{a}{b}\right)^3 = \underline{\frac{a^3}{b^3}}$$

$$\left(\frac{2}{y}\right)^5 = \underline{\frac{2^5}{y^5}} = \underline{\frac{32}{y^5}} \quad \left(\frac{a}{3}\right)^3 = \underline{\frac{a^3}{3^3}} = \underline{\frac{a^3}{27}}$$

$$x^0 = 1$$

$$3^0 = \underline{1} \quad y^0 = \underline{1}$$

$$(x+4)^0 = \underline{1} \quad (xyz)^0 = \underline{1}$$

# KEY EXPONENT RULES Practice Week 4 - Day 1

Simplify the following exponential expressions. Final answers should contain positive exponents only.

1.  $x^3 * x^4$   
 $x^{3+4} = x^7$

2.  $(a^3)^4$   
 $a^{3 \cdot 4} = a^{12}$

3.  $\frac{p^5}{p^2}$   
 $p^{5-2} = p^3$

4.  $(a^2bc^4)^3$   
 $a^{2 \cdot 3} b^{1 \cdot 3} c^{4 \cdot 3}$   
 $a^6 b^3 c^{12}$

5.  $\frac{x^2}{x^5}$   $x^{2-5} = x^{-3}$   
 or  $\frac{1}{x^3}$

6.  $(3x^2)^3$   
 $3^3 x^{2 \cdot 3}$   
 $27x^6$

7.  $(a^3b^2)(a^5b^5)$   
 $a^{3+5} b^{2+5}$   
 $a^8 b^7$

8.  $(3a^3b^{+1}a)^2$   
 $3^2 a^{3 \cdot 2} b^{1 \cdot 2} a^{1 \cdot 2}$   
 $9a^6 b^2 a^2$   
 $9a^8 b^2$

9.  $(2pq^2)^2(pq^2)^4$   
 $2^2 p^2 q^{2 \cdot 2} p^4 q^{2 \cdot 4}$   
 $4p^2 q^4 p^4 q^8$   
 $4p^6 q^{12}$

10.  $\frac{a^5}{a^9}$   $\frac{1}{a^4}$  or  $a^{-4}$

11.  $\frac{x^4y^2}{x^3y^3}$   $x^{4-3}y^{2-3}$   
 $x^1y^{-1}$  or  $\frac{x}{y}$

12.  $\frac{3x^4y^2}{9xy^6}$   $\frac{x^3}{3y^4}$

13.  $(3xy^3)^3(2x)$   
 $3^3 x^3 y^9 \cdot 2x$   
 $27x^3 y^9 \cdot 2x$   
 $54x^4 y^9$

14.  $(3a^1b^2)^3$   
 $3^3 a^3 (b^2)^3$   
 $27a^3 b^6$

15.  $\left(\frac{a^2b^2c^3}{a^2c}\right)^2$   
 $\frac{a^4b^4c^6}{a^4c^2} = b^4c^4$

16.  $(4ab^2)^2(4b)$   
 $16a^2b^4 \cdot 4b$   
 $64a^2b^5$

17.  $\left(\frac{3xy^2z^3}{4x^2z}\right)^2$   
 $\frac{9x^2y^4z^6}{16x^4z^2} = \frac{9y^4z^4}{16x^2}$

18.  $\left(\frac{2ab^2c^3}{3a^2c}\right)^3$   
 $\frac{2^3 a^3 b^6 c^9}{3^3 a^6 c^3} = \frac{8b^6c^6}{27a^3}$



# What Happens to a Dog Who Eats Table Scraps?

Simplify each expression below. Find your answer in the corresponding answer column and notice the letter next to it. Write this letter in the box that contains the number of that exercise.

- H 1  $(x^3)^2 \times x^6$
- E 2  $(x^4)^3 \times x^{12}$
- G 3  $(2x^2)^3 \times 8x^6$
- E 4  $(-4x^3)^2 \times 16x^6$
- T 5  $(-3x^4)^3 \times -27x^{12}$
- S 6  $(8x^5)^2 \times 64x^{10}$
- S 7  $(-2x^3)^5 \times -32x^{15}$
- P 8  $(4x)^3 \times 64x^3$
- L 9  $(-9x)^2 \times 81x^2$
- I 10  $x(2x^2)^3 \times 8x^7$
- N 11  $-3x(2x)^2 \times -12x^3$
- T 12  $x^2(5x^3)^3 \times 125x^{11}$
- E 13  $-4x^2(-4x)^2 \times -64x^4$

- ~~L~~ 14  $81x^2$
- ~~T~~ 15  $125x^{11}$
- ~~S~~ 16  $-32x^{15}$
- ~~G~~ 17  $8x^6$
- ~~E~~ 18  $-64x^4$
- ~~H~~ 19  $x^6$
- ~~N~~ 20  $-12x^6$
- ~~S~~ 21  $64x^{10}$
- ~~E~~ 22  $x^{12}$
- ~~P~~ 23  $64x^3$
- ~~E~~ 24  $16x^6$
- ~~L~~ 25  $8x^7$
- ~~T~~ 26  $-27x^{12}$

- R 14  $(4a^2b^3)^2 \times 16a^4b^6$
- S 15  $(2a^4b)^3 \times 8a^{12}b^3$
- I 16  $(-5a^3b^3)^2 \times 25a^6b^6$
- N 17  $(ab^3)^3 \times a^3b^{15}$
- H 18  $(-a^2b^5)^3 \times -a^6b^{15}$
- I 19  $(-8ab^4)^2 \times 64a^2b^8$
- S 20  $2a(3a^5b)^2 \times 18a^5b^2$
- T 21  $-b(5a^3b)^3 \times -125a^9b^4$
- O 22  $3ab(2ab^2)^4 \times 48a^5b^9$
- N 23  $(ab^3)^2(a^2b)^3 \times a^3b^9$
- G 24  $(-2ab^2)^2(-ab)^3 \times -4a^5b^7$
- U 25  $(3ab^3)(3ab)^2 \times 27a^3b^4$
- E 26  $(-a^2b)^4(-a^2b^4) \times -a^{10}b^8$

- ~~H~~ 14  $-a^6b^6$
- ~~E~~ 15  $-a^{10}b^8$
- ~~R~~ 16  $16a^4b^6$
- ~~N~~ 17  $a^3b^9$
- ~~T~~ 18  $25a^6b^6$
- ~~S~~ 19  $18a^5b^2$
- ~~U~~ 20  $27a^3b^4$
- ~~N~~ 21  $a^3b^{15}$
- ~~T~~ 22  $64a^2b^8$
- ~~O~~ 23  $48a^5b^9$
- ~~S~~ 24  $8a^{12}b^3$
- ~~G~~ 25  $-4a^5b^7$
- ~~T~~ 26  $-125a^9b^4$

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
H	E	G	E	T	S	S	P	L	I	N	T	E	R	S	I	N	H	I	S	T	O	N	G	U	E

He gets splinters in his tongue.

# WHY ARE MR AND MRS. NUMBER SO HAPPY?

Find the simplest form for each expression below in the adjacent answer column. The letter of the exercise goes in the box that contains the number of the corresponding answer.

- 7 E  $x^3 \cdot x^4 = x^7$
- 14 O  $3x^2 \cdot x = 3x^3$
- 23 T  $2x^2 \cdot 3x = 6x^3$
- 10 I  $x \cdot x^2 \cdot x^3 = x^6$
- 9 A  $x^4(-3x^2) = -3x^6$
- 2 H  $(-2x^2)(-2x) = 4x^3$
- 25 E  $x(-x^4)(-x^4) = x^9$
- 19  $-3x^6$  ✓
- 14  $3x^3$  ✓
- 25  $x^9$  ✓
- 7  $x^7$  ✓
- 10  $x^6$  ✓
- 2  $4x^3$  ✓
- 23  $6x^3$  ✓

- 21 T  $(u^2v)(-6uv^2) = -6u^3v^3$  ✓
- 3 E  $3v(uv^2)(u^3v) = u^4v^4$  ✓
- 12 L  $(4uv)(-u)(2u^4v) = -8u^6v^2$  ✓
- 17 A  $5(-3u^2)(-u^2v^2)(2uv) = 6u^5v^3$  ✓
- 5 L  $(-u^2)(-6u^2v^3)(-u^3v^4) = -u^7v^7$  ✓
- 13 G  $(-2u)(u^2v)(4u^3v^3) = -8u^6v^4$  ✓
- 24 V  $(\frac{1}{2}u^2v^3)(2uv^4) = u^3v^7$  ✓

- 6 R  $(ab^2)(a^2b) = a^3b^3$
- 14 A  $(3ab)(2a^3b) = 6a^4b^2$
- 26 G  $ab(-4ab^3) = -4a^2b^4$
- 8 E  $(-a^4b)(-5a^2b^3) = 5a^6b^4$
- 1 T  $(-2a^3b)(2ab^3) = -4a^4b^4$
- 11 N  $(6a^2b^2)(-2ab^5) = -12a^3b^7$
- 20 O  $(-4ab^4)(-3ab^4) = 12a^2b^8$
- 18  $5a^6b^4$  ✓
- 6  $a^3b^3$  ✓
- 26  $12a^2b^8$  ✓
- 8  $-4a^2b^4$  ✓
- 11  $-12a^3b^7$  ✓
- 1  $-4a^4b^4$  ✓
- 16  $6a^4b^2$  ✓

- 22 L  $(-b^2)(9a^2b^3) = -9a^2b^5$
- 27 Y  $(3a^2c)(-3bc^2) = -9a^2b^3c^3$
- 28 E  $c(-ab)(a^2b^2c^2) = -a^3b^3c^3$
- 15 O  $(-3a^2c)(-3b^2c) = 9a^2b^2c^2$
- 4 T  $(-ab)(-b^2c^2)(-a^2b^2) = -a^3b^5c^2$
- 20 H  $(a^2bc^2)(b^2c^3)(9a) = 9a^3b^3c^5$
- 9 N  $(3b^2)(\frac{1}{3}abc)(-c) = -ab^3c^2$
- 22  $-a^3b^5c^2$  ✓
- 27  $-ab^3c^2$  ✓
- 28  $-a^3b^3c^3$  ✓
- 15  $9a^2b^3c^2$  ✓
- 4  $-9a^2bc^3$  ✓
- 20  $-9a^2b^5$  ✓
- 9  $9a^2b^2c^2$  ✓

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
T	H	E	Y	A	R	E	G	O	I	N	G	T	O	H	A	V	E	A	C	I	T	T	L	E	S	O	N	E

They are going to have a little one

Evaluating Expressions *Week 4 - Day 7*

Evaluate each using the values given.

1)  $y \div 2 + x$ ; use  $x = 1$ , and  $y = 2$

2

2)  $a - 5 - b$ ; use  $a = 10$ , and  $b = 4$

1

3)  $p^2 + m$ ; use  $m = 1$ , and  $p = 5$

26

4)  $y + 9 - x$ ; use  $x = 1$ , and  $y = 3$

11

5)  $m + p \div 5$ ; use  $m = 1$ , and  $p = 5$

2

6)  $y^2 - x$ ; use  $x = 7$ , and  $y = 7$

42

7)  $z(x + y)$ ; use  $x = 6$ ,  $y = 8$ , and  $z = 6$

84

8)  $x + y + y$ ; use  $x = 9$ , and  $y = 10$

29

9)  $p^3 + 10 + m$ ; use  $m = 9$ , and  $p = 3$

46

10)  $6q + m - m$ ; use  $m = 8$ , and  $q = 3$

18

11)  $p^2m \div 4$ ; use  $m = 4$ , and  $p = 7$

49

12)  $y - (z + z^2)$ ; use  $y = 10$ , and  $z = 2$

4

13)  $z - (y \div 3 - 1)$ ; use  $y = 3$ , and  $z = 7$

7

14)  $(y + x) \div 2 + x$ ; use  $x = 1$ , and  $y = 1$

2

# Week 4 - Day 4

15)  $p - (9 - (m + q))$ ; use  $m = 4$ ,  $p = 5$ , and  $q = 3$

3

16)  $(a^2 - b) \div 6$ ; use  $a = 5$ , and  $b = 1$

4

17)  $(6 + h^2 - j) \div 2$ ; use  $h = 6$ , and  $j = 4$

19

18)  $y - (4 - x - y \div 2)$ ; use  $x = 3$ , and  $y = 2$

2

19)  $x^3 \div 3 - y$ ; use  $x = 3$ , and  $y = 1$

8

20)  $(p + q)^2 - (5 - 5)$ ; use  $p = 1$ , and  $q = 1$

4

21)  $12k - h^2$ ; use  $h = 2$ , and  $k = 3$

32

22)  $y \div 5 + 1 + x \div 6$ ; use  $x = 6$ , and  $y = 5$

3

23)  $6 \div 6 + z + x - y$ ; use  $x = 2$ ,  $y = 5$ , and  $z = 6$

4

24)  $y - z + xz \div 6$ ; use  $x = 3$ ,  $y = 4$ , and  $z = 4$

2

25)  $\frac{y}{2} + x + 4 + z + y$ ; use  $x = 7$ ,  $y = 2$ , and  $z = 4$

18

26)  $c \times \frac{bc}{4} - (7 - a)$ ; use  $a = 4$ ,  $b = 8$ , and  $c = 5$

47

26

## Solving One and Two Step Equations

Date \_\_\_\_\_ Period \_\_\_\_\_

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Solve each equation.

1)  $-18a = -72$

{4}

2)  $3n = 51$

{17}

3)  $-5 = 15 - x$

{20}

4)  $v - 5 = -13$

{-8}

5)  $-3 = \frac{p}{9}$

{-27}

6)  $-1 + n = 2$

{3}

7)  $-\frac{3}{4} = \frac{k}{12}$

{-9}

8)  $\frac{x}{20} = -15$

{-300}

9)  $p - -1.6 = -13.61$

{-15.21}

10)  $11.3 = m + 13.3$

{-2}

11)  $x - -1.3 = -17.4$

{-18.7}

12)  $2.6 = n - 10.5$

{13.1}

13)  $-4 = \frac{n}{9}$

{-36}

14)  $-306 = -17r$

{18}

15)  $\frac{x}{3} = 10$

{30}

16)  $20x = 280$

{14}

$$17) 50 = -5b$$
$$\{-10\}$$

$$18) 180 = -15v$$
$$\{-12\}$$

$$19) -132 = 12a$$
$$\{-11\}$$

$$20) \frac{x}{8} = -5$$
$$\{-40\}$$

$$21) -3(x+4) = -6$$
$$\{-2\}$$

$$22) -3 + 2k = 9$$
$$\{6\}$$

$$23) -5 + \frac{n}{8} = -6$$
$$\{-8\}$$

$$24) \frac{p}{4} - 1 = -3$$
$$\{-8\}$$

$$25) 12 + 12v = -300$$
$$\{-26\}$$

$$26) -13n + 15 = -128$$
$$\{11\}$$

$$27) -5(x-8) = 210$$
$$\{-34\}$$

$$28) 5 + \frac{n}{30} = 4$$
$$\{-30\}$$

$$29) -15(m-16) = 195$$
$$\{3\}$$

$$30) 17(r+12) = -374$$
$$\{-34\}$$

$$31) -2 - 17b = -189$$
$$\{11\}$$

$$32) -x - 5 = 21$$
$$\{-26\}$$

$\frac{\square}{32}$

Two-Step Equations *Week 5 - Day 2*

Date \_\_\_\_\_ Period \_\_\_\_\_

Solve each equation.

1)  $6 = \frac{a}{4} + 2$

{16}

2)  $-6 + \frac{x}{4} = -5$

{4}

3)  $9x - 7 = -7$

{0}

4)  $0 = 4 + \frac{n}{5}$

{-20}

5)  $-4 = \frac{r}{20} - 5$

{20}

6)  $-1 = \frac{5+x}{6}$

{-11}

7)  $\frac{v+9}{3} = 8$

{15}

8)  $2(n+5) = -2$

{-6}

9)  $-9x + 1 = -80$

{9}

10)  $-6 = \frac{n}{2} - 10$

{8}

11)  $-2 = 2 + \frac{v}{4}$

{-16}

12)  $144 = -12(x+5)$

{-17}

# Week 5 - Day 2

$$13) -15 = -4m + 5$$

{5}

$$14) 10 - 6v = -104$$

{19}

$$15) 8n + 7 = 31$$

{3}

$$16) -9x - 13 = -103$$

{10}

$$17) \frac{n+5}{-16} = -1$$

{11}

$$18) -10 = -10 + 7m$$

{0}

$$19) -10 = 10(k-9)$$

{8}

$$20) \frac{m}{9} - 1 = -2$$

{-9}

$$21) 9 + 9n = 9$$

{0}

$$22) 7(9+k) = 84$$

{3}

$$23) 8 + \frac{b}{-4} = 5$$

{12}

$$24) -243 = -9(10+x)$$

{17}

$\frac{\square}{24}$



## Multi-Step Equations

Date \_\_\_\_\_ Period \_\_\_\_\_

Solve each equation.

1)  $6a + 5a = -11$

 $\{-1\}$ 

2)  $-6n - 2n = 16$

 $\{-2\}$ 

3)  $4x + 6 + 3 = 17$

 $\{2\}$ 

4)  $0 = -5n - 2n$

 $\{0\}$ 

5)  $6r - 1 + 6r = 11$

 $\{1\}$ 

6)  $r + 11 + 8r = 29$

 $\{2\}$ 

7)  $-10 = -14v + 14v$

No solution.

8)  $-10p + 9p = 12$

 $\{-12\}$ 

9)  $42 = 8m + 13m$

 $\{2\}$ 

10)  $a - 2 + 3 = -2$

 $\{-3\}$ 

11)  $18 = 3(3x - 6)$

 $\{4\}$ 

12)  $30 = -5(6n + 6)$

 $\{-2\}$

# Week 5 - Day 3

$$13) 37 = -3 + 5(x + 6)$$

{2}

$$14) -13 = 5(1 + 4m) - 2m$$

{-1}

$$15) 4(-x + 4) = 12$$

{1}

$$16) -2 = -(n - 8)$$

{10}

$$17) -6(1 - 5v) = 54$$

{2}

$$18) 8 = 8v - 4(v + 8)$$

{10}

$$19) 10(1 + 3b) = -20$$

{-1}

$$20) -5n - 8(1 + 7n) = -8$$

{0}

$$21) 8(4k - 4) = -5k - 32$$

{0}

$$22) -8(-8x - 6) = -6x - 22$$

{-1}

$$23) 8(1 + 5x) + 5 = 13 + 5x$$

{0}

$$24) -11 - 5a = 6(5a + 4)$$

{-1}

□  
24

Week 5 - Day 4

# Why Do Girls Like Guys Who Wear Shirts With Eight Buttons?

Solve each equation below and find your solution at the bottom of the page. Write the letter of that equation above the solution.

- (E)  $4(5n - 7) = 10n + 2$  n=3
- (N)  $9(x + 3) = 4x - 3$  x=-6
- (A)  $2(12 - 8x) = x - 11x$  x=4
- (H)  $3t + 8(2t - 6) = 2 + 14t$  t=10
- (E)  $2v + 18 = 16 - 4(v + 7)$  v=-5
- (I)  $4x - (9 - 3x) = 8x - 1$  x=-8
- (T)  $12(3 + y) = 5(2y + 8)$  y=2
- (A)  $-7(1 - 4m) = 13(2m - 3)$  m=-16
- (Y)  $9(11 - k) = 3(3k - 9)$  k=7
- (S)  $4x + 5(7x - 3) = 9(x - 5)$  x=-1
- (T)  $2(6d + 3) = 18 - 3(16 - 3d)$  d=-12
- (F)  $8(4u - 1) - 12u = 11(2u - 6)$  u=29
- (C)  $-5 - (15y - 1) = 2(7y - 16) - y$  y=1



□  
13

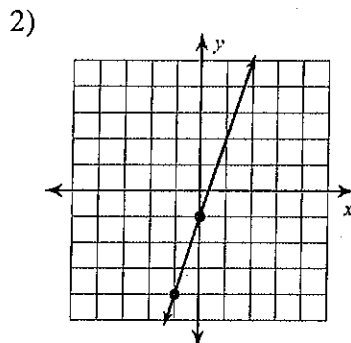
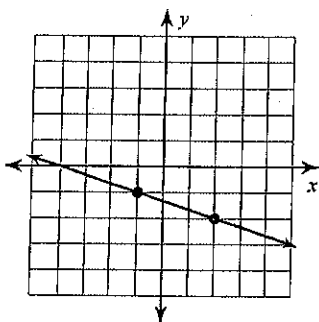
T	H	E	Y		F	A	S	C	I	N	A	T	E
2	10	3	7	9	29	4	-1	1	-8	-6	-16	-12	-5

# Slope

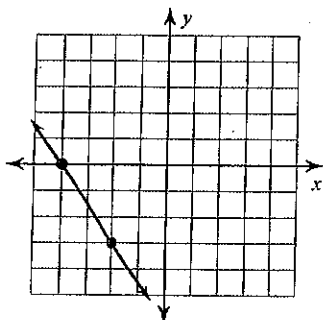
## Week 6 - Day 1

Find the slope of each line.

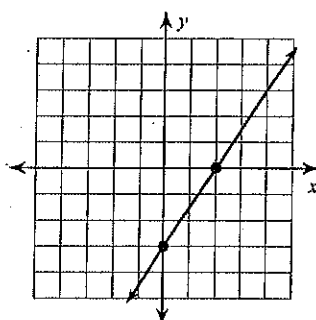
1)  $-\frac{1}{3}$



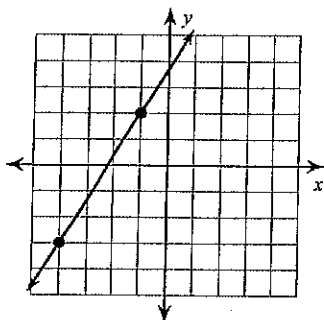
3)  $-\frac{3}{2}$



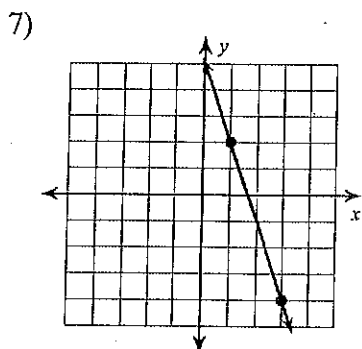
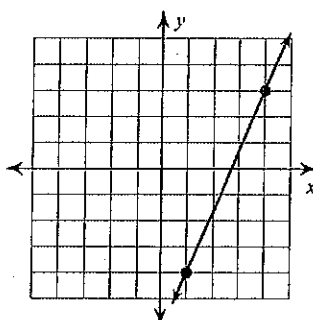
4)  $\frac{3}{2}$



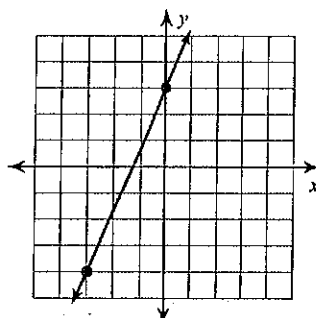
5)  $\frac{5}{3}$



6)  $\frac{7}{3}$



8)  $\frac{7}{3}$



Find the slope of the line through each pair of points.

9)  $(8, 10), (-7, 14)$

$$-\frac{4}{15}$$

10)  $(-3, 1), (-17, 2)$

$$-\frac{1}{14}$$

11)  $(-20, -4), (-12, -10)$

$$-\frac{3}{4}$$

12)  $(-12, -5), (0, -8)$

$$-\frac{1}{4}$$

13)  $(-19, -6), (15, 16)$

$$\frac{11}{17}$$

14)  $(-6, 9), (7, -9)$

$$-\frac{18}{13}$$

15)  $(-18, -20), (-18, -15)$

Undefined

16)  $(12, -18), (11, 12)$

-30

Find the slope of each line.

17)  $y = -5x - 1$

-5

18)  $y = \frac{1}{3}x - 4$

$\frac{1}{3}$

19)  $y = -\frac{1}{5}x - 4$

$-\frac{1}{5}$

20)  $x = 1$

Undefined

21)  $y = \frac{1}{4}x + 1$

$\frac{1}{4}$

22)  $y = -\frac{2}{3}x - 1$

$-\frac{2}{3}$

23)  $y = -x + 2$

-1

24)  $y = -x - 1$


-1

25)  $2x + 3y = 9$

$-\frac{2}{3}$

26)  $5x + 2y = 6$

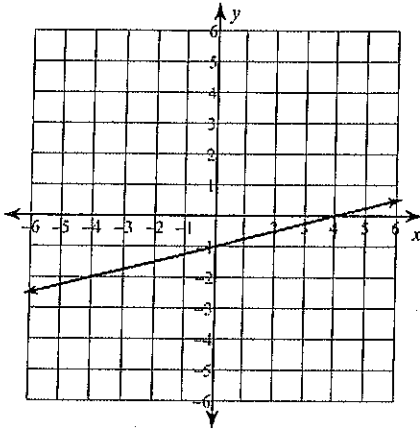
$-\frac{5}{2}$

  
26

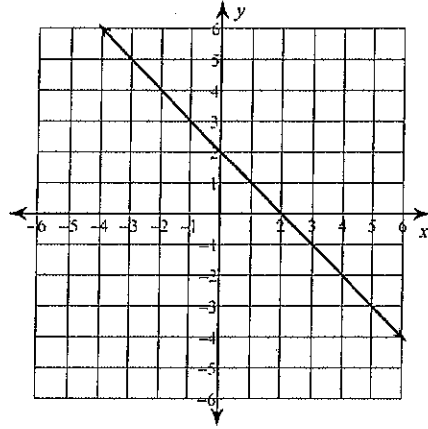
### Graphing Lines in Slope-Intercept Form

Sketch the graph of each line.

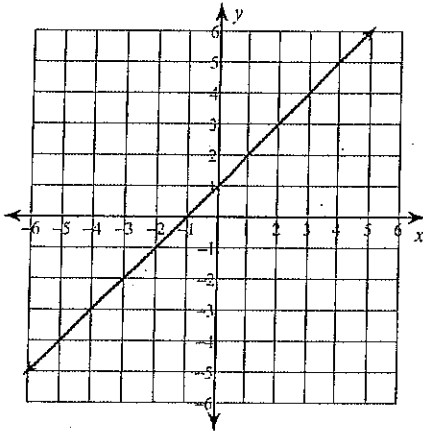
1)  $y = \frac{1}{4}x - 1$



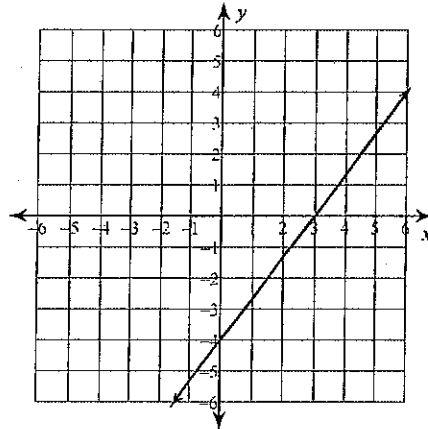
2)  $y = -x + 2$



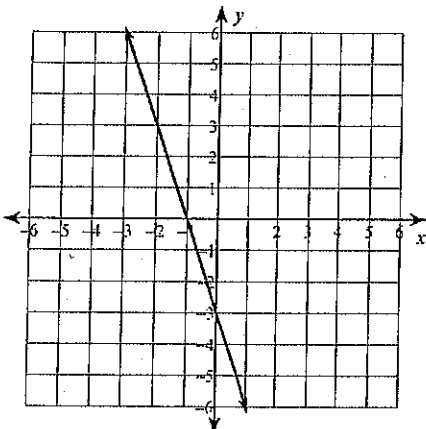
3)  $y = x + 1$



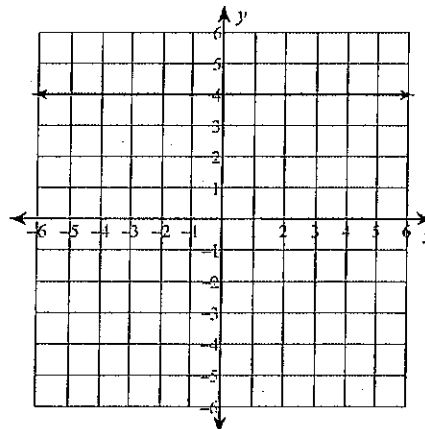
4)  $y = \frac{4}{3}x - 4$



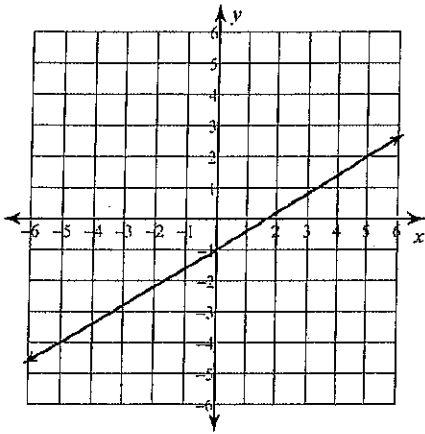
5)  $y = -3x - 3$



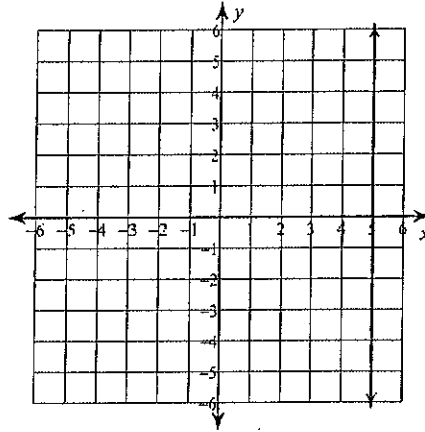
6)  $y = 4$



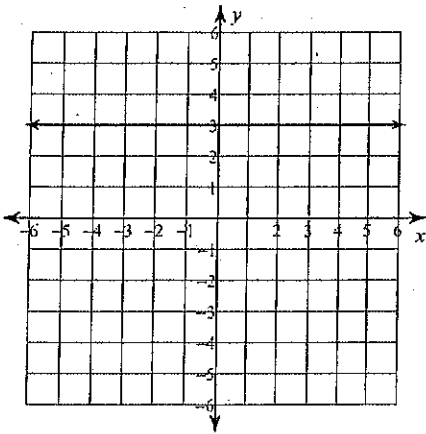
7)  $y = \frac{3}{5}x - 1$



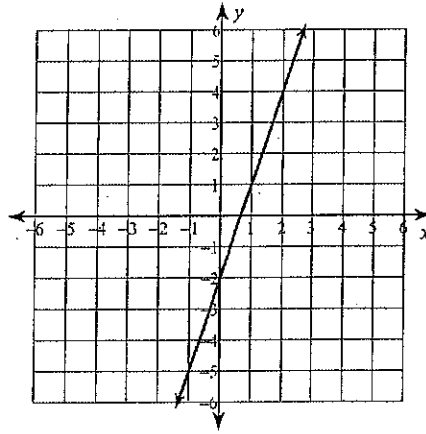
8)  $x = 5$



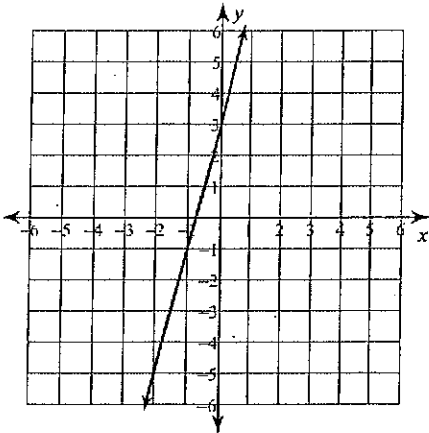
9)  $y = 3$



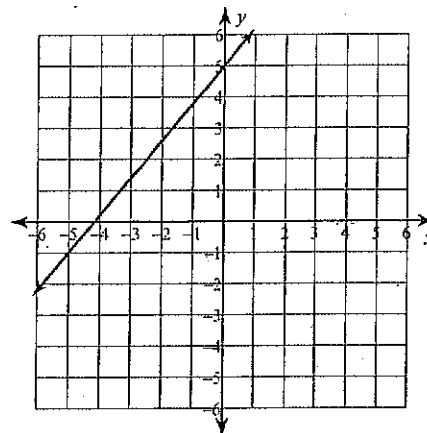
10)  $y = 3x - 2$



11)  $y = 4x + 3$



12)  $y = \frac{6}{5}x + 5$



12

# WHY DO ELEPHANTS HAVE POINTY TAILS?

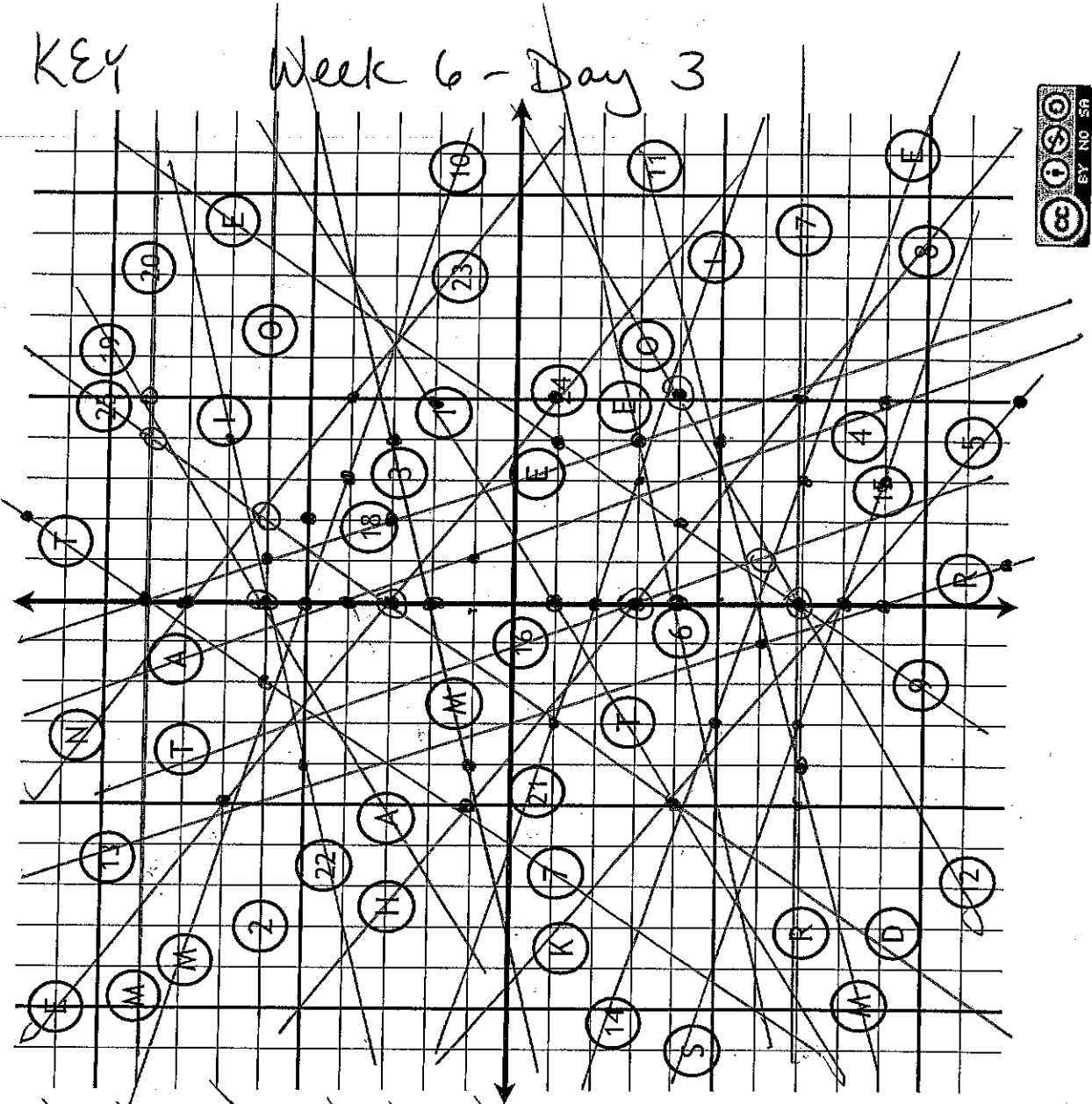
NAME \_\_\_\_\_  
 DATE \_\_\_\_\_  
 PERIOD \_\_\_\_\_

GRAPH A LINE FOR EACH EQUATION. EACH LINE WILL PASS THROUGH A NUMBER AND A LETTER. PUT THE LETTER IN THE CORRESPONDING BOX TO ANSWER THE QUESTION.

- $y = \frac{1}{4}x + 6$  ✓  $y = -\frac{4}{5}x + 3$  ✓  $y = \frac{1}{4}x - 6$  ✓
- $y = -\frac{1}{3}x - 2$  ✓  $y = -\frac{4}{5}x + 8$  ✓  $y = \frac{1}{4}x + 2$  ✓
- $y = -3x - 9$  ✓  $y = -\frac{1}{3}x + 5$  ✓  $y = \frac{3}{5}x + 6$  ✓
- $y = -\frac{4}{5}x - 8$  ✓  $y = \frac{3}{2}x + 9$  ✓  $y = \frac{1}{4}x - 4$  ✓
- $y = \frac{3}{2}x - 7$  ✓  $y = -3x + 4$  ✓  $y = -3x - 3$  ✓
- $y = \frac{3}{5}x - 1$  ✓  $y = -\frac{4}{5}x - 3$  ✓  $y = \frac{3}{2}x + 3$  ✓
- $y = -\frac{1}{3}x - 8$  ✓  $y = -3x + 9$  ✓  $y = 9$  ✓
- $y = -\frac{1}{3}x - 6$  ✓  $y = \frac{3}{5}x - 7$  ✓  $y = 6$  ✓
- $y = -7$  ✓

T	M	A	K	E	T	H	E	M	M	O	R	E
1	2	3	4	5	6	7	8	9	10	11	12	13, 14

S	T	R	E	A	M	L	I	N	E	D
15	16	17	18	19	20	21	22	23	24	25



KEY Week 6 - Day 3





## Solving Systems of Equations by Graphing

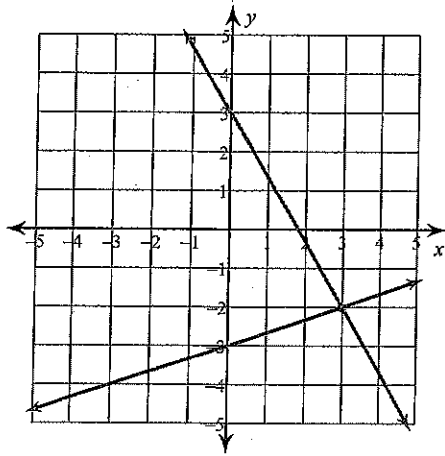
Date \_\_\_\_\_

Period \_\_\_\_\_

Solve each system by graphing.

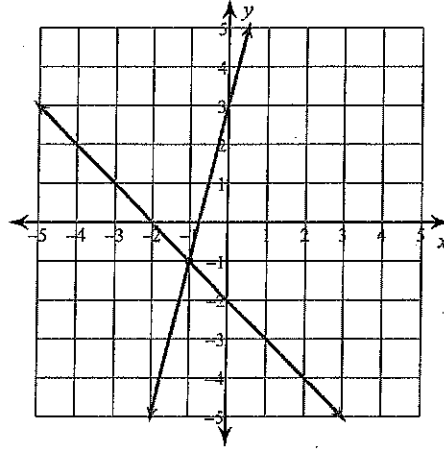
1)  $y = -\frac{5}{3}x + 3$

$y = \frac{1}{3}x - 3$



(3, -2)

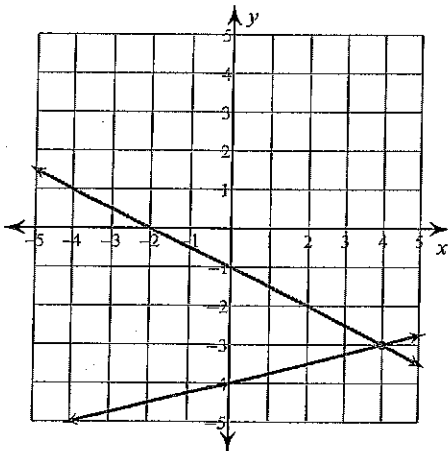
2)  $y = 4x + 3$   
 $y = -x - 2$



(-1, -1)

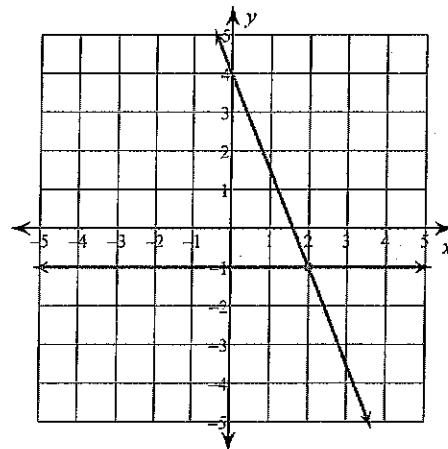
3)  $y = -\frac{1}{2}x - 1$

$y = \frac{1}{4}x - 4$



(4, -3)

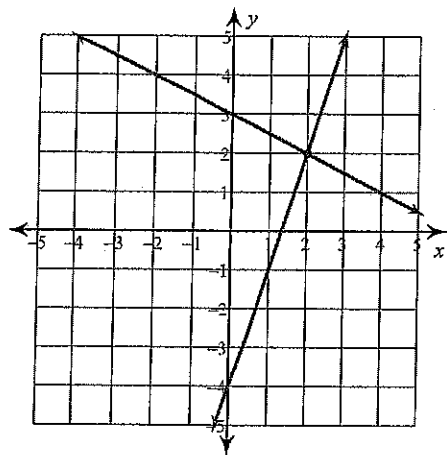
4)  $y = -1$   
 $y = -\frac{5}{2}x + 4$



(2, -1)

$$5) y = 3x - 4$$

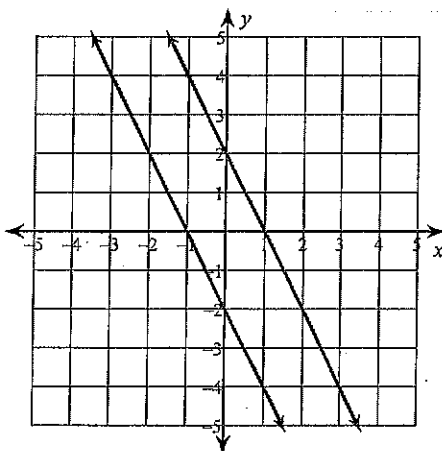
$$y = -\frac{1}{2}x + 3$$



(2, 2)

$$6) y = -2x + 2$$

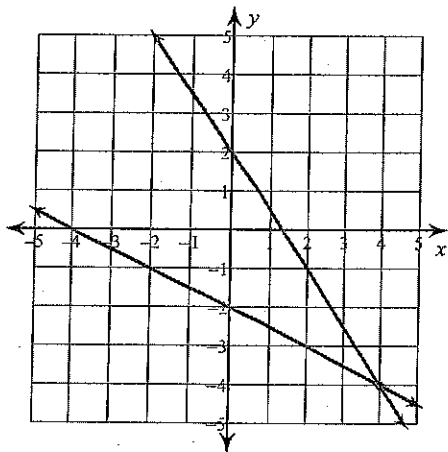
$$y = -2x - 2$$



No solution

$$7) y = -\frac{1}{2}x - 2$$

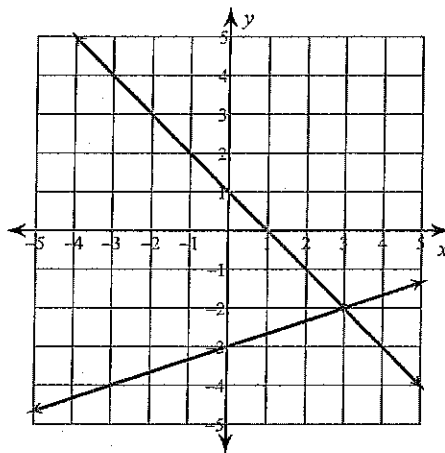
$$y = -\frac{3}{2}x + 2$$



(4, -4)

$$8) y = \frac{1}{3}x - 3$$

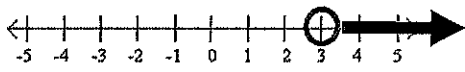
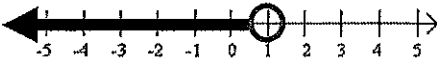
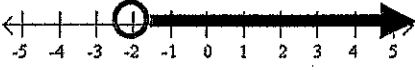
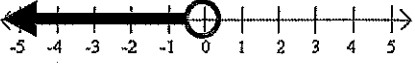
$$y = -x + 1$$



(3, -2)

8

# Week 7, Day 1 Graphing Inequalities

Symbol	Words	Example	Example on Number Line
$>$	X is greater than 3	$X > 3$	
$<$	X is less than 1	$X < 1$	
$\geq$	X is greater than or equal to -2	$X \geq -2$	
$\leq$	X is less than or equal to 0	$X \leq 0$	

When graphing with  $\leq$  or  $\geq$  use a CLOSED circle above the value to show it is included.

When graphing with  $<$  or  $>$  use an OPEN circle above the value to show it is NOT included.

Circle the possible values that satisfy each inequality.



$$2x \geq 8$$

$$x \geq 4$$

1    3    **4**    **6**



$$x - 3 < 9$$

$$x < 12$$

16    **5**    18    **10**



$$12 > x + 6$$

$$6 > x$$

$$x < 6$$

**2**    **3**    6    **5**



$$\frac{x}{2} > 9$$

$$x > 18$$

2    **20**    6    8



$$5x \leq 10$$

$$x \leq 2$$

5    **1**    **2**    4

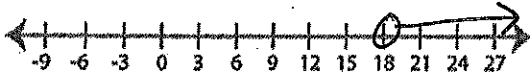


$$x + 5 > 9$$

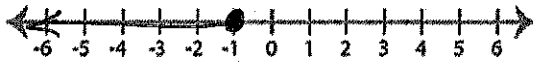
$$x > 4$$

2    1    **7**    **9**

$$\begin{array}{r} 7) \ x - 15 > 3 \\ \quad + 15 \quad + 15 \\ \hline \quad \quad \quad x > 18 \end{array}$$

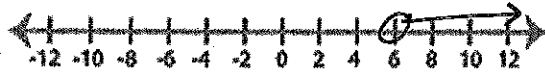


$$\begin{array}{r} 8) \ x + 11 \leq 10 \\ \quad - 11 \quad - 11 \\ \hline \quad \quad \quad x \leq -1 \end{array}$$

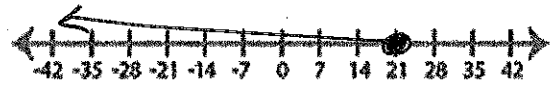


Solve each inequality and graph the solution.

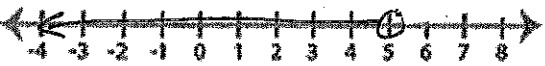
$$\begin{array}{r} 1) \ x - 2 > 4 \\ \quad + 2 \quad + 2 \\ \hline \quad \quad \quad x > 6 \end{array}$$



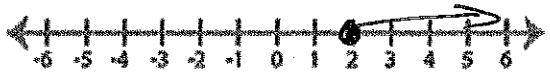
$$2) \ 3\left(\frac{x}{3}\right) \leq (7)3 \quad x \leq 21$$



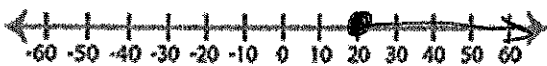
$$3) \ \frac{6x}{6} < \frac{30}{6} \quad x < 5$$



$$\begin{array}{r} 4) \ x + 9 \geq 11 \\ \quad - 9 \quad - 9 \\ \hline \quad \quad \quad x \geq 2 \end{array}$$



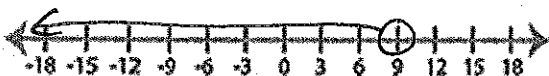
$$5) \ 2\left(\frac{x}{2}\right) \geq (10)2 \quad x \geq 20$$



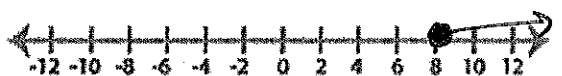
$$\begin{array}{r} 6) \ x - 5 \leq 2 \\ \quad + 5 \quad + 5 \\ \hline \quad \quad \quad x \leq 7 \end{array}$$



$$\begin{array}{r} 7) \ 7 + x < 16 \\ \quad - 7 \quad - 7 \\ \hline \quad \quad \quad x < 9 \end{array}$$



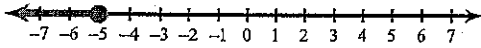
$$\begin{array}{r} 8) \ \frac{4x}{4} \geq \frac{32}{4} \\ \quad \quad \quad x \geq 8 \end{array}$$



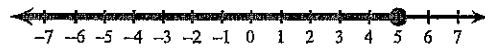
Graphing Inequalities

Draw a graph for each inequality.

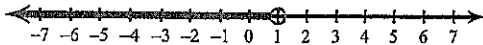
1)  $n \leq -5$



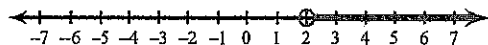
2)  $n \leq 5$



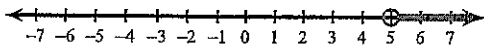
3)  $x < 1$



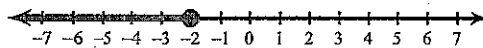
4)  $r > 2$



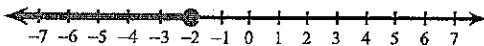
5)  $n > 5$



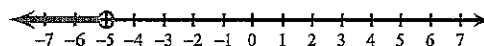
6)  $r \leq -2$



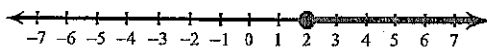
7)  $k \leq -2$



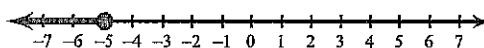
8)  $m < -5$



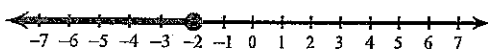
9)  $x \geq 2$



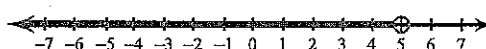
10)  $-5 \geq v$



11)  $-2 \geq v$

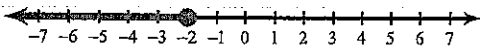


12)  $x < 5$

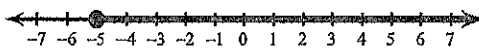


# Week 7, Day 2

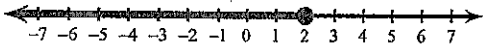
13)  $-x \geq 2$



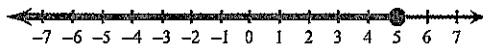
14)  $5 \geq -a$



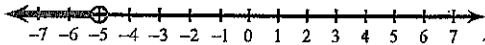
15)  $x \leq 2$



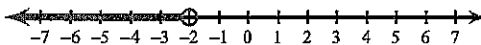
16)  $x \leq 5$



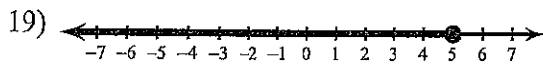
17)  $-5 > b$



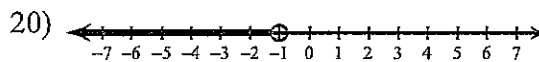
18)  $-2 > b$



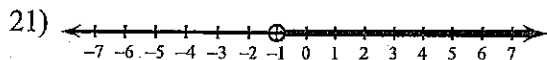
Write an inequality for each graph.



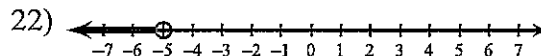
$n \leq 5$



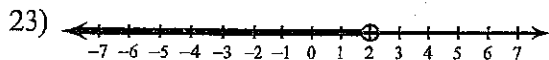
$p < -1$



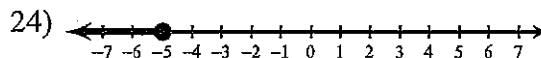
$r > -1$



$a < -5$



$p < 2$



$n \leq -5$

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# Week 7, Day 3

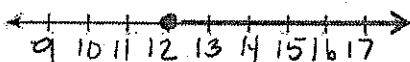
## Solving and Graphing 2-Step Inequalities

Directions: Solve and graph each inequality. 2 pts each

$$1) \quad -4 \leq -8 + \frac{k}{3}$$

$$\begin{array}{r} +8 \quad +8 \\ \hline 3 \cdot 4 \leq \frac{k \cdot 3}{3} \end{array}$$

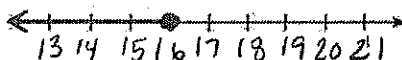
$$12 \leq k \quad k \geq 12$$



$$2) \quad 112 \geq 7x - 4$$

$$\begin{array}{r} +4 \quad +4 \\ \hline 108 \geq 7x \end{array}$$

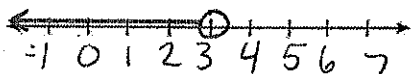
$$\frac{108}{7} \geq \frac{7x}{7} \quad x \leq 16$$



$$3) \quad 3 \cdot 1 > \frac{10+c}{13} \cdot 13$$

$$\begin{array}{r} 13 > 10+c \\ -10 \quad -10 \\ \hline 3 > c \end{array}$$

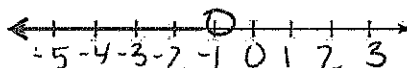
$$c < 3$$



$$4) \quad -2 + 7v < -9$$

$$\begin{array}{r} +2 \quad +2 \\ \hline 7v < -7 \end{array}$$

$$v < -1$$



$$5) \quad -6r - 2 \leq 40$$

$$\begin{array}{r} +2 \quad +2 \\ \hline -6r \leq 42 \end{array}$$

$$\frac{-6r}{-6} \geq \frac{42}{-6}$$

$$r \geq -7$$



$$6) \quad \frac{a}{3} + 3 < 4$$

$$\begin{array}{r} -3 \quad -3 \\ \hline 3 \cdot \frac{a}{3} < 1 \cdot 3 \end{array}$$

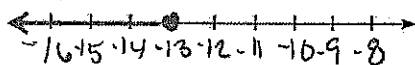
$$a < 3$$



$$7) \quad \frac{5x-2}{-5} \geq 3 \cdot -5$$

$$\begin{array}{r} x-2 \leq -15 \\ +2 \quad +2 \\ \hline x \leq -13 \end{array}$$

$$x \leq -13$$

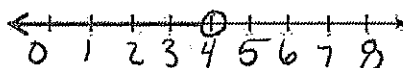


$$8) \quad -2 - 4x > -18$$

$$\begin{array}{r} +2 \quad +2 \\ \hline -4x > -16 \end{array}$$

$$\frac{-4x}{-4} < \frac{-16}{-4}$$

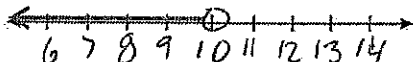
$$x < 4$$



$$9) \quad -1 > \frac{x}{2} - 6$$

$$\begin{array}{r} +6 \quad +6 \\ \hline 2 \cdot 5 > \frac{x \cdot 2}{2} \end{array}$$

$$10 > x \quad x < 10$$

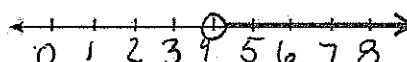


$$10) \quad 4 + 8c > 36$$

$$\begin{array}{r} -4 \quad -4 \\ \hline 8c > 32 \end{array}$$

$$\frac{8c}{8} > \frac{32}{8}$$

$$c > 4$$



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## Squares &amp; Square Roots-

Simplify. Your answer should contain only positive exponents.

1)  $5^2$  25

2)  $2^2$  4

3)  $11^2$  121

4)  $4^2$  16

5)  $15^2$  225

6)  $7^2$  49

7)  $6^2$  36

8)  $8^2$  64

9)  $3^2$  9

10)  $10^2$  100

11)  $20^2$  400

12)  $9^2$  81

13)  $14^2$  196

14)  $12^2$  144

Find each square root.

15)  $\sqrt{100}$  10

16)  $\sqrt{36}$  6

17)  $\sqrt{9}$  3

18)  $\sqrt{0}$  0

19)  $\sqrt{121}$  11

20)  $\sqrt{81}$  9

21)  $\sqrt{144}$  12

22)  $\sqrt{49}$  7

23)  $\sqrt{169}$  13

24)  $\sqrt{1}$  1

25)  $\sqrt{16}$  4

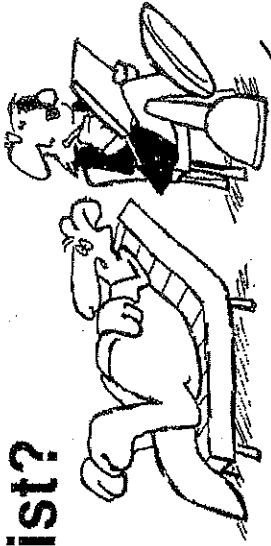
26)  $\sqrt{4}$  2

27)  $\sqrt{25}$  5

28)  $\sqrt{64}$  8



# Why Did The Kangaroo See A Psychiatrist?



Find the graph of the solution set of any inequality below in the corresponding column of graphs. Notice the letter next to it. Write this letter in each box that contains the number of that exercise. Keep working and you will discover the answer to the title question.

① $x < 1$ <b>D</b>		⑩ $x < -1$ <b>U</b>	
② $x \leq 1$ <b>I</b>		⑪ $-1 < x < 3$ <b>U</b>	
③ $x > 1$ <b>G</b>		⑫ $3 \geq x < 5$ <b>M</b>	
④ $x \geq 1$ <b>I</b>		⑬ $x < 3$ <b>O</b>	
⑤ $x \neq 1$ <b>A</b>		⑭ $x \neq 0$ <b>P</b>	
⑥ $x < -2$ <b>H</b>		⑮ $0 \leq x < 3$ <b>P</b>	
⑦ $x > -2$ <b>R</b>		⑯ $0 \geq x < 3$ <b>W</b>	
⑧ $x \leq -2$ <b>L</b>		⑰ $0 < x < 3$ <b>J</b>	
⑨ $x \geq -2$ <b>S</b>		⑱ $0 > x < 3$ <b>N</b>	

6	16	15	13	11	1	16	7	16	1	16	15	6	4	6	16	15	5	9	12	16	16	8	2	11	3	9	13	18	10	17	14	4
H	E	W	O	N	D	E	R	E	D	W	A	Y	H	G	W	A	S	F	E	E	L	I	N	G	S	O	J	U	M	P	Y	

He wondered why he was feeling so jumpy

$\frac{\square}{18}$