

Name _____ Date _____ Hour _____

DIRECTIONS

- Complete the following problems in this packet in the space provided. Please use pencil! Show your work, where needed. Write your answer on the line.
- If you need instruction or a review of the topics in this packet, go to <http://www.khanacademy.org/>. These are excellent videos that will re-teach and remind you how to go about the problems. You may also research online for websites or other videos or use your textbook from last year.
- Bring this completed packet of problems with you to class on the first day of school. It will be collected! You should expect to have a quiz the first week of school over this review material.

CHAPTER 1**1 – 4. Evaluate the expression.**

1. $12 - x$ when $x = 8$

2. $3x$ when $x = 9$

3. w^3 when $w = 2$

4. $\frac{24}{y}$ when $y = 4$

5 – 7. Evaluate the power.

5. 6^2

6. 7^3

7. 5^4

8. Real-Life Application

The height of a horse is often measured in hands. You can estimate the height (in inches) of a horse by using the expression $4h$, where h is the number of hands. How tall is a horse that measures 14 hands?

9 – 12. Evaluate the expression. Use order of operations – PEMDAS.

9. $12 \div 3 - 1$

10. $15 - 7 \cdot 2$

11. $2 + 2^3 \div 4$

12. $5(3^2 - 4)$

13 – 16. Translate the verbal phrase into an expression, equation, or inequality.13. The quotient of a number x and 914. Six minus a number w squared15. Three more than twice a number b is equal to 13.16. The product of five and a number k is greater than 60.**Answers**

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

16. _____

CHAPTER 1 (CONTINUED)

17 – 18. Check if the number is a solution. Answer YES or NO.

17. $4y - 1 \geq 20$; $y = 4$

18. $4a - 7 = 3a - 4$; $a = 3$

19 – 20. Tell whether the pairing is a function. Answer YES or NO.

To be a function, every input should have one output.

19.

Input	Output
0	3
5	7
10	7
15	11

20.

Input	Output
0	1
1	5
1	2
4	4.5

Answers

17. _____

18. _____

19. _____

20. _____

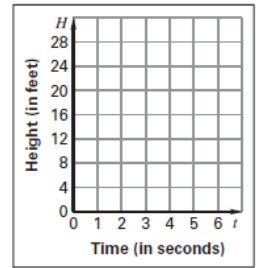
21. Make a table for the function.

$y = 2x + 1$

Input, x	1	2	3	4
Output, y				

22. Graph the information from the table.

Time, t	Height, H
0	6
1	23
2	28
3	24
4	18
5	13



CHAPTER 2

1 – 3. Evaluate the expression.

1. $\pm\sqrt{25}$

2. $\sqrt{121}$

3. $-\sqrt{100}$

4 – 12. Solve the equation.

4. $x + 8 = -12$
 $\quad \underline{-8 \quad -8}$
 $\quad \quad \quad x = -20$

5. $6x = 48$

6. $\frac{x}{3} = 9$

7. $x - 30 = 50$

8. $2x + 20 = 32$

9. $3x - 5 = 16$

10. $\frac{x}{4} + 1 = 3$

11. $12x - 4x = 24$

12. $2x + 7x = 45$

Answers

1. _____

2. _____

3. _____

4. $x = -20$

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

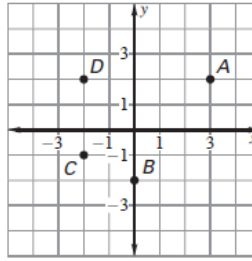
11. _____

12. _____

CHAPTER 3

1 – 4. Write the coordinates of the point.

1. A 2. B
 3. C 4. D

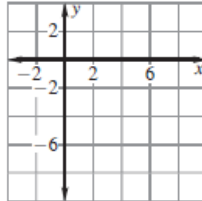
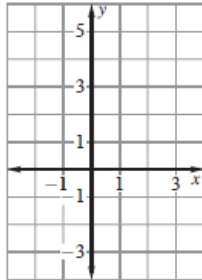
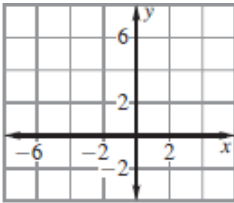


5 – 6. Tell whether the ordered pair is a solution. Answer YES or NO.

5. $y = 2x + 2$; $(-3, 2)$ 6. $2x + y = -1$; $(1, -3)$

7 – 9. Draw the line that has the given intercepts.

7. x-intercept: -2 8. x-intercept: 1 9. x-intercept: 6
 y-intercept: 4 y-intercept: 3 y-intercept: -6



10 – 12. Find the slope of the line that passes through the points.

Use the formula: $Slope = \frac{y_2 - y_1}{x_2 - x_1}$

10. $(4, 2)$ 11. $(5, 1)$ 12. $(-1, 3)$
 $(3, 4)$ $(5, -2)$ $(2, 4)$
 x_1 y_1
 x_2 y_2

13 – 15. Identify the slope and y-intercept of the line. $y = mx + b$

13. $y = 5x + 2$ 14. $y = x - 4$ 15. $y = -2x + 1.5$

16 – 19. Evaluate the function for the given value.

Hint: Plug the number in for x.

16. $f(x) = 3x + 12$ $f(-5)$ 17. $p(x) = 5x$ $p(10)$
 18. $g(x) = -2x - 3$ $g(4)$ 19. $h(x) = 25$ $h(4)$

Answers

1. _____
 2. _____
 3. _____
 4. _____
 5. _____
 6. _____
 7. *See graph*
 8. *See graph*
 9. *See graph*
 10. _____
 11. _____
 12. _____
 13. $m =$ $b =$
 14. $m =$ $b =$
 15. $m =$ $b =$
 16. _____
 17. _____
 18. _____
 19. _____

CHAPTER 4

1 – 3. Write an equation in slope-intercept form ($y = mx + b$) of the line. *Hint: The slope is m and the y -intercept is b .*

1. Slope: -2; y -intercept: 0
2. Slope: 4; y -intercept: -1
3. Slope: $\frac{3}{4}$; y -intercept: 2

4 – 9. Write an equation in slope-intercept form of the line that passes through the point and has the given slope m .

4. $(2, -3); m = 3$ 5. $(-1, 0); m = 2$ 6. $(3, -1); m = \frac{2}{3}$

$$\begin{array}{l}
 x \quad y \\
 y = mx + b \\
 -3 = 3 \cdot 2 + b \\
 -3 = 6 + b \\
 \underline{-6 \quad -6} \\
 -9 = b \\
 y = 3x - 9
 \end{array}$$

7. $(4, -8); m = -2$ 8. $(7, 5); m = \frac{4}{7}$ 9. $(0, 12); m = 5$

Answers

1. _____

2. _____

3. _____

4. $y = 3x - 9$

5. _____

6. _____

7. _____

8. _____

9. _____

10. *See graph*

11. *See graph*

12. *See graph*

13. *See graph*

14. *See graph*

15. *See graph*

10 – 15. Graph the equation.

Steps for Graphing

1. Plot a point on the y -axis at the y -int which is the b .
2. Count the slope which is the # in front of the x .

$$\text{Slope} = \frac{\text{Rise (x)}}{\text{Run (y)}}$$
3. Connect the points.

