Algebra 1-A: Period 1 and 5

Access Algebra 1-A Worksheets listed below in the following pages of this PDF (worksheets are NOT in your books)

Week One: Review Chapter One: Solving Linear Equations

Complete :

Worksheet 1.1 Puzzle Time,
Worksheet 1.2 Puzzle Time,
Worksheet 1.3 Puzzle Time,
Worksheet 1.4 Puzzle Time,
Worksheet 1.5 Puzzle Time

Week Two: Review Chapter Two: Solving Linear Inequalities

Complete:

Worksheet 2.1 Puzzle Time,
Worksheet 2.2 Puzzle Time,
Worksheet 2.3 Puzzle Time,
Worksheet 2.4 Puzzle Time,
Worksheet 2.5 Puzzle Time

Worksheets can be printed (if you have access to a printer) or completed on paper/notebook. The assignments will be due when we return to school.

If you have access, please use www.bigideasmath.com, your textbook, and/or notes for examples to help complete the worksheets. You can also email or call me (please leave a Voicemail message) with any questions and I will respond as quickly as possible. Thank you! Stay safe and healthy!

Email: aletizia@rockwoodschools.org

Call: 814-926-4688 ext 2115

1.1 Puzzle Time

Did You Hear About The Tree's Birthday?

Circle the letter of each correct answer in the boxes below. The circled letters will spell out the answer to the riddle.

Find the value of the variable which satisfies the equation.

1. $m + 7 = 9$

2. $x + 11 = 4$

3. $n - \dfrac{3}{5} = \dfrac{2}{5}$

4. $-18 = r - 12$

5. $s - (-10) = 2$

6. $6.3 = b - 1.5$

7. $1.4h = 5.6$

8. $y \div 9 = -3$

9. $-7c = -63$

10. $\dfrac{x}{8} = -3$

11. $-\dfrac{6}{7}a = 18$

12. $-144\pi = -12\pi k$

Solve an equation to answer the question.

13. The students on a decorating committee create a banner. The length of the banner is 2.5 times its width. The length of the banner is 20 feet. What is the width (in feet) of the banner?

14. The student council consists of 32 members. There are 27 members decorating for the dance. How many members are not decorating?

B	L	I	B	M	T	T	C	N	W	D	A	O	E	S	P
15	−18	4	2.1	13	−16	−21	4.6	17	9	−13	5	9.1	8.2	7.8	11.6

A	Q	G	U	S	A	H	P	R	I	P	Y	O	J	N	E
−8	20	−17	16	2	−24	14	1	18	−14	−27	−7	8	−20	12	−6

Name _____ Date _____

1.2 Puzzle Time

Why Did The Muffler Quit The Car Business?

Write the letter of each answer in the box containing the exercise number.

Find the value of the variable which satisfies the equation.

1. $4a - 5 = 11$

2. $16 = 17 - t$

3. $8 = \dfrac{k}{-3} - 2$

4. $\dfrac{b + 7}{4} = 9$

5. $12c + 6c = 36$

6. $14x + 11x + 10 = 85$

7. $19w - 13 - 6w = -39$

8. $-4(2n - 5) = -28$

9. $8s + 3(12 - 7s) = 49$

10. $-18 = 15z - 9(2z - 2)$

Solve an equation to find the number.

11. The difference of six times a number and 7 is -49.

12. Negative sixteen plus the quotient of a number and -4 is -3.

13. The sum of two times a number and 11 is -7.

14. The total cost for a week at camp is $220. You have $140. You earn $16 for every item you sell in a fundraiser. How many items do you need to sell to pay for a week at camp?

Answers

E. -7

T. 1

I. 6

E. 2

X. 5

D. -1

S. -30

A. 29

H. -2

W. 12

T. -52

A. 3

S. 4

U. -9

8	2		10	4	1		11	14	7	6	13	3	12	5	9

Name _____ Date _____

1.3 Puzzle Time

What Is The Best Way To Communicate With A Fish?

Write the letter of each answer in the box containing the exercise number.

Find the value of the variable which satisfies the equation.

1. $14 - 3x = 4x$

2. $6a - 10 = 3a + 17$

3. $9 + 5w - 14w = 12 - 6w$

4. $12(b + 2) = 8(b + 5)$

5. $6(y + 8) = 3(2y - 7)$

6. $\dfrac{3}{4}(12c - 4) = 15c + 15$

7. $11(4p + 4) - 4p = 4(7p - 7)$

8. $3(2d - 8) = 11d - 18(d - 3)$

9. $5(4 + r) = \dfrac{1}{2}(40 + 10r)$

10. $\dfrac{3}{5}e - 6 = -\dfrac{2}{5}(e - 10) - 7$

11. Three consecutive integers are n, $n + 1$, and $n + 2$. Four times the sum of the least and greatest integers is 12 less than three times the least integer. What is the least integer?

Answers

P. 4

L. 3

E. 9

I. 6

N. no solution

A. 2

D. infinitely many solutions

T. -6

R. -4

I. -1

O. -3

9	11	6	4		3	7		1		10	8	5	2

Name _____ Date _____

Did You Hear About The Two Ducks In A Race?

A	B	C	D	E	F
G	H	I	J	K	L
M	N				

Complete each exercise. Find the answer in the answer column. Write the word under the answer in the box containing the exercise letter.

5, 9 FEET	
−7, 7 THRILL	
4 THE	
−3, 3 AND	
3 OF	
−14, 7 FAST	
17 RESULTED	
$-\dfrac{1}{2}, \dfrac{1}{4}$ TIE	
−11, 6 THE	

Simplify the expression.

A. $\left|-7\right|$ 　　　　　　　　**B.** $\left|-17\right|$

C. $\left|16\right| - \left|-16\right|$ 　　　　**D.** $\left|-\dfrac{36}{9}\right|$

Find the value of the variable which satisfies the equation. Check your solution.

E. $\left|x\right| = 7$ 　　　　　　　　**F.** $\left|b\right| = -19$

G. $\left|w - 4\right| = 11$ 　　　　　**H.** $\left|-8e\right| = 24$

I. $\left|2q + 5\right| = 17$ 　　　　　**J.** $6\left|5p + 4\right| - 16 = 20$

K. $\left|c - 24\right| = 7c$ 　　　　　**L.** $\left|3s - 11\right| = \left|s + 9\right|$

M. $\left|h - 8\right| = \left|h + 10\right|$

N. During last year's volleyball season, the coach concluded that the number of points scored in each game could be given by the equation $\left|x - 7\right| = 2$. How many points were scored in each game?

0 IN	
$\dfrac{1}{2}$, **10** SEVERAL	
7 IT	
−2, 2 WINNER	
$-2, \dfrac{2}{5}$ AGONY	
no solution OF	
−1 WEBBED	
−7, 15 VICTORY	
−11 SECOND	

1.5 Puzzle Time

What Happened To The Shark Who Swallowed A Bunch Of Keys?

Write the letter of each answer in the box containing the exercise number.

Solve the literal equation for y.

1. $y + 5x = 17$

2. $4y - 36x = 28$

3. $8x - 11 = 13 + 8y$

4. $6 + \frac{1}{3}y = 10 + 12x$

Solve the literal equation for x.

5. $y = 9x - 2x$

6. $d = 5x + 10xf$

7. $rx - sx = p$

8. $3j = 4kx + 7mx + n$

Solve the equation for the indicated variable.

9. Volume of a cone: $V = \frac{1}{3}\pi r^2 h$; Solve for h.

10. Perimeter of a rectangle: $P = 2\ell + 2w$; Solve for w.

11. Area of a rectangle: $A = \ell w$; Solve for ℓ.

12. The surface area of a right circular cylinder is given by the formula $S = 2\pi rh + 2\pi r^2$. Solve the equation for h.

Answers

O. $y = x - 3$

W. $x = \dfrac{3j - n}{4k + 7m}$

T. $x = \dfrac{d}{5 + 10f}$

O. $y = 9x + 7$

E. $y = -5x + 17$

G. $h = \dfrac{3V}{\pi r^2}$

K. $y = 36x + 12$

H. $x = \dfrac{p}{r - s}$

L. $\ell = \dfrac{A}{w}$

A. $x = \dfrac{1}{7}y$

C. $w = \dfrac{P - 2\ell}{2}$

J. $h = \dfrac{S - 2\pi r^2}{2\pi r}$

7	1		9	3	6		11	2	10	4	12	5	8

2.1 Puzzle Time

What Does A Cricket Like To Do At Recess?

Write the letter of each answer in the box containing the exercise number.

Write the sentence as an inequality.

1. A number x is less than or equal to 4.

    D. $x < 4$ **E.** $x \leq 4$ **F.** $x \geq 4$

2. A number k decreased by 11 is greater than 3.

    M. $11 - k > 3$ **N.** $k - 11 < 3$ **O.** $k - 11 > 3$

3. Sixteen is less than a number r divided by 8.

    L. $16 > \dfrac{r}{8}$ **M.** $16 < \dfrac{r}{8}$ **N.** $16 < 8r$

4. Twelve is no more than the difference of a number t and 5.

    J. $12 \leq t - 5$ **K.** $12 \geq t - 5$ **L.** $12 \leq 5 - t$

5. Seven times the sum of a number d and 11 is less than 22.

    P. $7d + 11 < 22$ **Q.** $7(d + 11) \leq 22$ **R.** $7(d + 11) < 22$

Tell whether the value is a solution of the inequality.

6. $a + 6 < -2; a = -8$

    O. yes   **P.** no

7. $32 \leq -4n - 15; n = 14$

    T. yes   **U.** no

8. $\dfrac{4m}{5} - 2 > 3; m = 10$

    P. yes   **Q.** no

4	7	3	6		5	2	8	1

2.2 Puzzle Time

Where Did The Granite Go On Saturday Night?

Write the letter of each answer in the box containing the exercise number.

Solve the inequality.

1. $x + 12 < -4$

2. $-3 \geq x - 11$

3. $x - 6 < -7$

4. $2 \geq x - 1$

5. $x + 9 < 10$

6. $12 + x > 8$

7. $x - (-14) \geq 30$

8. $x - 22 + 16 < -3$

9. $5 > x - (-5)$

10. $7 - 26 + x \geq -11$

11. $36 \leq 6x - 5x - 16$

Write the sentence as an inequality. Then solve the inequality.

12. A number x plus 24 is greater than 23.

13. A number x minus 5 is at least -4.

14. The sum of a number x and 19 is less than or equal to 35.

15. The monthly minutes on your cell phone can add up to no more than 700 minutes. You have used 648 minutes. Write and solve an inequality that represents how many more minutes that you can use during the rest of the month.

16. The side lengths of a triangle are 11.3 centimeters, 14.7 centimeters, and x centimeters. The perimeter of the triangle is less than 44 centimeters. Write and solve

Answers

T. $x \geq 16$

L. $x < 0$

T. $x < 3$

Y. $x > -4$

H. $x \geq 8$

O. $x \leq 3$

A. $x \leq 8$

L. $x < 1$

A. $x < -16$

E. $x < -1$

T. $x \geq 52$

L. $x + 24 > 23; x > -1$

C. $x + 648 \leq 700; x \leq 52$

S. $x - 5 \geq -4; x \geq 1$

R. $x + 11.3 + 14.7 < 44; x < 18$

B. $x + 19 \leq 35; x \leq 16$

an inequality to find the possible values of x.

11	4		7	10	3		15	16	6	13	8	1	9		14	2	5	12

Name _____ Date _____

2.3 Puzzle Time

Did You Hear About The Two Punsters Who Told A Lot Of Jokes About Cats?

A	B	C	D	E	F
G	H	I	J	K	L
M	N				

Complete each exercise. Find the answer in the answer column. Write the word under the answer in the box containing the exercise letter.

Solve the inequality.

$x \le -25$ **PLAY**		$x \ge -48$ **ANY**

A. $3x < 9$

B. $-25 \le -5x$

| $x < -8$
 KITTEN | | $x \le 21$
 TREATS |

C. $\dfrac{x}{4} > -2$

D. $36 \ge -\dfrac{3}{4}x$

| $x \ge 11$
 SAID | | $x \ge 48$
 EITHER |

E. $-14 \le \dfrac{7}{6}x$

F. $-10x > 35$

| $x \le 4$
 THAT | | $x < -48$
 NOT |

G. $-88 \ge -8x$

H. $-\dfrac{x}{2} < -6$

| $x > -13$
 YARN | | $x \ge -12$
 MORE |

I. $-27 > -9x$

J. $\dfrac{5}{8}x < -30$

| $x > 3$
 WE'RE | | $x < -\dfrac{2}{7}$
 ABOUT |

K. $-2x > 16$

L. $\dfrac{x}{2} < -\dfrac{1}{7}$

| $x < -\dfrac{7}{2}$
 THEY | | $x < 3$
 WE |

M. You have saved some money to purchase five different songs to download to your portable music device. Solve an inequality that represents the prices you can pay for each song if you have saved no more than $20.

| $x \le 5$
 WON'T | | $x \ge -84$
 TWO |

| $x > -8$
 TELL | | $x > 12$
 AND |

N. You are able to type 24 words in one minute. Solve an inequality that represents the number of minutes that you will need to type an essay that consists of at least 1152 words.

2.4 Puzzle Time

Where Do Young Tigers Swim?

Write the letter of each answer in the box containing the exercise number.

Solve the inequality.

1. $4x - 7 < 9$

2. $-11 > 10 - 7x$

3. $\dfrac{x}{6} + 5 > 8$

4. $-\dfrac{x}{2} + 12 \geq 14$

5. $6x - 23 > 25$

6. $6 - \dfrac{x}{5} \geq -2$

7. $3 \geq -3(x - 13)$

8. $16 - 4x > 9 - 5x$

9. $2x + 7 \leq 2x + 8$

10. $-6(x - 1) < -14(x - 5)$

11. $12x + 4x - 11 \geq 16x + 17$

12. $3(1 - x) + 10x \leq 9(x - 2) + 7$

13. The students in charge of the class booth at a carnival would like to earn $3 for every item they sell. They spent $55 for the materials to make the items. Solve the inequality $3x - 55 \geq 65$, which represents how many items they need to sell to make a profit of at least $65.

14. A triangle has a base of 14 centimeters and a height of $(3x - 4)$ centimeters. The area of the triangle is greater than 56 centimeters. Solve the inequality $\dfrac{1}{2}(14)(3x - 4) > 56$ to find the possible values of x.

Answers

N. all real numbers

K. $x \geq 7$

P. $x < 8$

E. $x > 3$

O. $x < 4$

I. $x > 8$

O. $x \geq 40$

Y. $x \leq -4$

T. $x > 4$

L. $x > -7$

T. no solution

H. $x \geq 12$

I. $x \leq 40$

T. $x > 18$

5	9		3	7	2		12	6	14	11	4		10	1	13	8

Name _____ Date _____

2.5 Puzzle Time

What Was The Name Of Jupiter's Big Pet Dog?

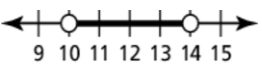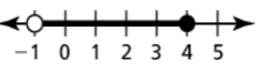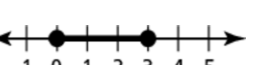Write the letter of each answer in the box containing the exercise number.
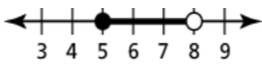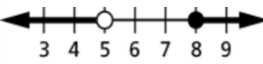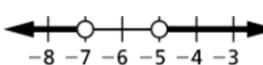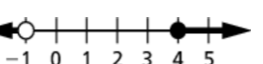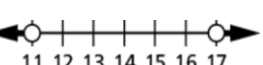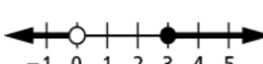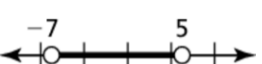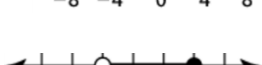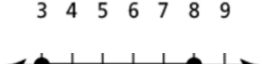
Write the sentence as an inequality. Graph the inequality.

1. A number x is less than *or* equal to 4 *and* greater than -1.

2. A number x is less than 0 *or* at least 3.

3. A number x is less than 8 *and* greater than or equal to 5.

Solve the inequality. Graph the solution.

4. $9 < x + 4 \le 12$

5. $-5x - 12 < 13 \text{ or } -6x + 8 > 50$

6. $-3 \le 2x - 3 \le 3$

7. $-4x + 7 > -13 \text{ or } 3x + 2 \ge 26$

8. $9x - 13 < -22 \text{ or } -8x + 7 \le -25$

9. $71 > -8x + 15 > -25$

10. $24 < 3x - 6 < 36$

11. $2x - 15 < 7 \text{ or } -3x < -51$

12. A local department store advertised that its clearance items had prices that were at least $3 *and* no more than $8. Write and solve an inequality that represents the prices of clearance items, and graph the inequality.

Answers

E. $5 \le x < 8$;

T. $x < 5 \text{ or } x \ge 8$;

T. $10 < x < 14$;

E. $-1 < x \le 4$;

S. $x < -7 \text{ or } x > -5$;

R. $x < -1 \text{ or } x \ge 4$;

G. $x < 11 \text{ or } x > 17$;

O. $x < 0 \text{ or } x \ge 3$;

A. $0 \le x \le 3$;

P. $-7 < x < 5$;

D. $5 < x \le 8$;

R. $3 \le x \le 8$;

11	8	3	6	10		12	1	4		5	9	2	7