Summer Math Packet for Algebra I

The Spire School

For review of skills, visit

https://www.khanacademy.org/

https://www.virtualnerd.com/

https://www.youtube.com/

and simply put the topic on the left upper corner of the worksheet into the search engine.

Find the Greatest Common Factor.

1) 68, 34	2) 54, 27
3) 60x, $56x^2$	4) $80x^3$, $24x^2$y

Write each as a verbal expression.

5) 21 - 8	6) 18 + 2x

Write each as an algebraic expression.

7) The sum of 5 and some number	8) The quotient of 24 and some number
9) The difference of some number and 2	10) The product of 4 and some number

Perform the following operations.

11) $\frac{9}{2}+\frac{1}{3}$	12) $\frac{9}{2}-\frac{1}{3}$
13) $-\frac{9}{2}-\frac{1}{3}$	14) $2+\frac{5}{6}$
15) $(-\frac{5}{4})(\frac{1}{3})$	16) $(\frac{2}{3})(\frac{1}{4})$
17) $(\frac{5}{8})\div(\frac{3}{2})$	18) $(\frac{2}{3})\div(-\frac{1}{6})$

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Name_____

Simplifying Variable Expressions

Date_____ Period____

Simplify each expression.

1) $-3p+6p$

2) $b-3+6-2b$

3) $7x-x$

4) $7p-10p$

5) $-10v+6v$

6) $-9r+10r$

7) $9+5r-9r$

8) $1-3v+10$

9) $5n+9n$

10) $4b+6-4$

11) $35n-1+46$

12) $-33v-49v$

13) $30n+8n$

14) $7x+31x$

15) $10x+36-38x-47$

16) $-2(7-n)+4$

17) $-8(-5b+7)+5b$

18) $-4p-(1-6p)$

19) $4-5(-4n+3)$

20) $-7(k-8)+2k$

21) $1+7(1-3b)$

22) $3-8(7-5n)$

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Name_____

Evaluating Variable Expressions

Date_____ Period____

Evaluate each using the values given.

1) $n^2 - m$; use $m = 7$, and $n = 8$

2) $8(x - y)$; use $x = 5$, and $y = 2$

3) $yx \div 2$; use $x = 7$, and $y = 2$

4) $m - n \div 4$; use $m = 5$, and $n = 8$

5) $x - y + 6$; use $x = 6$, and $y = 1$

6) $z + x^3$; use $x = 1$, and $z = 19$

7) $y + yx$; use $x = 15$, and $y = 8$

8) $q \div 6 + p$; use $p = 10$, and $q = 12$

9) $x + 8 - y$; use $x = 20$, and $y = 17$

10) $15 - (m + p)$; use $m = 3$, and $p = 10$

11) $10 - x + y \div 2$; use $x = 5$, and $y = 2$

12) $p - 2 + qp$; use $p = 7$, and $q = 4$

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Name_____

One-Step Equations With Integers

Date_____ Period____

Solve each equation.

1) $v - 10 = -9$

2) $v - 10 = -3$

3) $x - 3 = 4$

4) $\frac{x}{5} = 2$

5) $22 = -11k$

6) $-13m = -377$

7) $b - 7 = -1$

8) $-8 = p - 13$

9) $-40 = -5p$

10) $418 = -22a$

11) $\frac{a}{29} = 5$

12) $-2 = \frac{m}{16}$

13) $x - 11 = 16$

14) $-10 = x - 21$

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Name_____

One-Step Equation Word Problems

Date_____ Period____

1) Lisa is cooking muffins. The recipe calls for 7 cups of sugar. She has already put in 2 cups. How many more cups does she need to put in?

2) At a restaurant, Mike and his three friends decided to divide the bill evenly. If each person paid $13 then what was the total bill?

3) How many packages of diapers can you buy with $40 if one package costs $8?

4) Last Friday Trevon had $29. Over the weekend he received some money for cleaning the attic. He now has $41. How much money did he receive?

5) Last week Julia ran 30 miles more than Pranav. Julia ran 47 miles. How many miles did Pranav run?

6) How many boxes of envelopes can you buy with $12 if one box costs $3?

7) Amanda and her best friend found some money buried in a field. They split the money evenly, each getting $24.28. How much money did they find?

8) Jenny wants to buy an MP3 player that costs $30.98. How much change does she receive if she gives the cashier $40?