

Name:

Rising 8th Grade Summer Math (Pre-Algebra 7 Review) Worksheet 1

Reading/Writing Whole Numbers

Write each as a numeral.

- | | |
|--|--|
| 1) seven million | 2) five million, forty thousand |
| 3) four million, thirty | 4) four hundred million, four |
| 5) four hundred million | 6) nine thousand, one hundred ninety-one |
| 7) five hundred forty-eight million, eight hundred ninety-eight thousand, seven hundred eighty-three | |

Write each numeral in words.

- 8) 40,000,090
- 9) 930,010
- 10) 2,482

Order of Operations

Evaluate each expression.

- | | |
|-----------------------------------|-------------------------------|
| 11) $(30 - 3) \div 3$ | 12) $(21 - 5) \div 8$ |
| 13) $1 + 7^2$ | 14) $5 \times 4 - 8$ |
| 15) $9 \times (3 + 3) \div 6$ | 16) $(9 + 18 - 3) \div 8$ |
| 17) $9 + 6 \div (8 - 2)$ | 18) $4(4 \div 2 + 4)$ |
| 19) $7 \times 9 - 7 - 3 \times 5$ | 20) $8 - 1 - (18 - 2) \div 8$ |

Rising 8th Grade Summer Math (Pre-Algebra 7 Review) Worksheet 2

Evaluating Variable Expressions

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 $y = 1$

Greatest Common Factor

Find the GCF of each.

6) 39, 6

7) 24, 28

8) 40, 10

9) $39v$, $30uv$

10) $35n^2m$, $21m^2n$

More Problems on Back!

Least Common Multiple

Find the LCM of each.

11) 10, 3

12) 14, 6

13) 15, 6

14) 15, 20

15) 27, 18

Simplify each expression

16) $7x + 31x$

17) $-2(7 - n) + 4$

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

19) $-7(k - 8) + 2k$

20) $3 - 8(7 - 5n)$

Rising 8th Grade Summer Math (Pre-Algebra 7 Review) Worksheet 3

Integer Operations

Find each sum.

1) $(-12) + 7$

2) $(-10) + (-7)$

3) $(-6) + 12$

4) $8 + 7$

5) $3 + 4$

6) $(-45) + 9$

7) $(-1) + (-46)$

8) $(-30) + 10$

9) $(-34) + 50$

10) $38 + (-5)$

Find each difference.

11) $2 - (-2)$

12) $(-1) - 10$

13) $8 - 7$

14) $(-8) - (-6)$

15) $11 - 4$

16) $48 - (-31)$

17) $18 - 41$

18) $(-38) - 30$

19) $(-1) - (-3)$

20) $(-1) - (-40)$

Find each product.

21) 8×-12

22) $-6 \times -10 \times -8$

23) $6 \times 6 \times -2$

24) $9 \times 9 \times -5$

25) $7 \times 5 \times -5$

Find each quotient.

26) $-168 \div -12$

27) $-8 \div 2$

28) $\frac{-105}{7}$

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

30) $\frac{-10}{-2}$

31) $\frac{-144}{12}$

Name:

Rising 8th Grade Summer Math (Pre-Algebra 7 Review) Worksheet 4

Add/Subtracting Fractions and Mixed Numbers

Evaluate each expression.

1) $\frac{5}{4} - \frac{3}{4}$

2) $\frac{3}{2} - \frac{1}{2}$

3) $6 - \frac{1}{6}$

4) $\frac{1}{2} - \frac{1}{2}$

5) $\left(-\frac{4}{5}\right) - \frac{7}{8}$

6) $\frac{1}{3} - \left(-\frac{5}{3}\right)$

7) $\left(-\frac{1}{3}\right) + \frac{3}{8}$

8) $\left(-\frac{10}{7}\right) + \frac{1}{6}$

9) $\left(-2\frac{5}{6}\right) - \left(-1\frac{1}{4}\right)$

10) $\left(-3\frac{5}{8}\right) - 4\frac{2}{5}$

Find each product.

11) $-\frac{5}{4} \cdot \frac{1}{3}$

12) $\frac{8}{7} \cdot \frac{7}{10}$

13) $\frac{4}{9} \cdot \frac{7}{4}$

14) $-\frac{2}{3} \cdot \frac{5}{4}$

15) $-2 \cdot \frac{3}{7}$

16) $-2\frac{2}{3} \cdot 4\frac{1}{10}$

Find each quotient.

17) $\frac{-1}{5} \div \frac{7}{4}$

18) $\frac{-1}{2} \div \frac{5}{4}$

19) $\frac{-3}{2} \div \frac{-10}{7}$

20) $\frac{1}{2} \div \frac{8}{7}$

21) $\frac{-9}{5} \div 2$

22) $-3\frac{5}{9} \div 3$

Rising 8th Grade Summer Math (Pre-Algebra 7 Review) Worksheet 5**Adding/Subtracting Decimals****Evaluate each expression.**

1) $19.4 + 24.2$

2) $(-14.8) - (-9.7)$

3) $(-9.1) + 3.5$

4) $0.96 - 8.5$

5) $9.5 - (-19.3)$

6) $3.4 - (-12.1)$

7) $8.7 + 3.8 + 12.3$

8) $(-13.6) + 12 - (-15.5)$

9) $3.4 - 5 - 10.4$

10) $(-5.6) - (-12.6) + (-6.6)$

Multiplying Decimals**Find each product.**

11) -5.5×-4.87

12) 1.7×-2.1

13) 0.2×-1.6

14) 1.7×-3.1

15) -4.6×-7.2

16) -5.928×-11.6

17) -1.5×-7.1

18) 7.8×5.1

19) $-7.5 \times 9 \times -8.3$

20) $-4.04 \times -9 \times 3$

21) $3.2 \times 8.7 \times -1.1$

22) $8.1 \times 8.6 \times -5.2$

Name:

Rising 8th Grade Summer Math (Pre-Algebra 7 Review) Worksheet 6

Fractions, Decimals, and Percents

Write each as a decimal.

1) 115.9%

2) 9%

Write each as a percent.

3) 0.452

4) 0.006

Write each as a fraction.

5) 20%

6) 80%

Write each as a percent.

7) $2\frac{1}{10}$

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

Finding Percent Change

Find each percent change. Round to the nearest tenth of a percent. State if it is an increase or decrease.

9) From 33 to 47

10) From 92 to 9.7

Markup, Discount, and Tax

Find the selling price of each item.

11) Cost of a sled: \$99.50
Markup: 95%

12) Original price of a book: \$18.50
Discount: 45%

13) Original price of an SUV: \$42,000.00
Tax: 3%

More Problems on Back!

14) 81 is 56% of what?

15) What percent of 137.4 is 96?

16) 30% of 117 is what?

Solve each proportion.

17) $\frac{10}{k} = \frac{8}{4}$

18) $\frac{m}{10} = \frac{10}{3}$

19) Shawna reduced the size of a rectangle to a height of 2 in. What is the new width if it was originally 24 in wide and 12 in tall?

20) Ming was planning a trip to Western Samoa. Before going, she did some research and learned that the exchange rate is 6 Tala for \$2. How many Tala would she get if she exchanged \$6?

Name:

Rising 8th Grade Summer Math (Pre-Algebra 7 Review) Worksheet 7

Algebra and Properties

1) $14 + 13 = 13 + 14$ _____

This is an example of _____ property.

2) $(12 \times 5) \times 3 = 12 \times (5 \times 3)$ This is an example of _____ property.

3) The _____ property means the numbers can be swapped.

4) The rule that refers to grouping is _____ property.

Combining Like Terms

Simplify each expression.

5) $-6k + 7k$

6) $12r - 8 - 12$

7) $n - 10 + 9n - 3$

8) $-4x - 10x$

9) $-10(1 - 9x) + 6(x - 10)$

10) $5(-2n + 4) + 2(n + 3)$

11) $-3(10b + 10) + 5(b + 2)$

12) $-7(n + 3) - 8(1 + 8n)$

More Problems on Back!

Convert the Units.

13. **108 in = _____ ft**

14. **33 ft = _____ yd**

15. **3 ft = _____ in**

16. **6 yd = _____ ft**

17. **10560 ft = _____ mi**

18. **8800 yd = _____ mi**

19. **500 cm = _____ m**

20. **10 km = _____ m**

21. **2000 g = _____ kg**

22. **9 L = _____ ml**

23. **2.25 gal = _____ qt**

24. **312 oz = _____ gal**

Name:

Rising 8th Grade Summer Math (Pre-Algebra 7 Review) Worksheet 8

Equations

Solve each equation.

1) $v - 10 = -9$

2) $x - 3 = 4$

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

4) $-13m = -377$

5) $6 = m - 16$

6) $3p - 2 = -29$

7) $1 - r = -5$

8) $-9 + \frac{n}{4} = -7$

9) $\frac{m}{16} - 9 = -8$

10) $-7 + 4r = -15$

11) $-6n - 2n = 16$

12) $4x + 6 + 3 = 17$

13) $18 = 3(3x - 6)$

14) $37 = -3 + 5(x + 6)$

15) $8(4k - 4) = -5k - 32$

16) $0.4x + 3.9 = 5.78$

17) $\frac{v}{10.44} - 2.9 = -4.422$

18) $-8.38v + 10.71 = 131.382$

19) $-3.8 - 13.4p = -460.606$

20) $\frac{r - 8.7}{3.6} = 3.722$

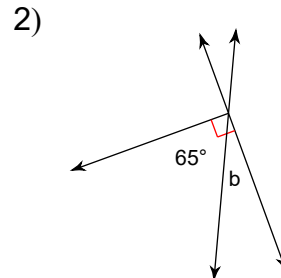
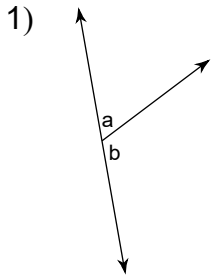
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Rising 8th Grade Summer Math (Pre-Algebra 7 Review) Worksheet 9

Geometry

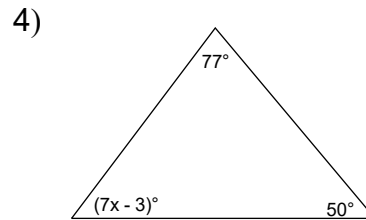
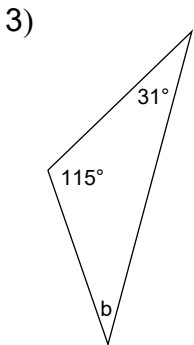
Name the relationship: complementary or supplementary,

Find the measure of angle b.

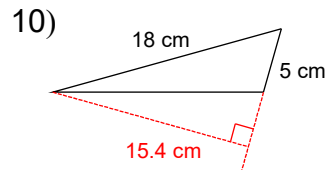
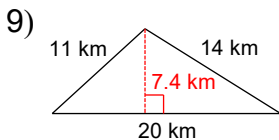
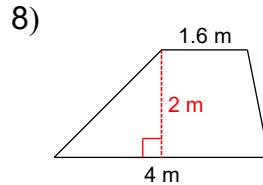
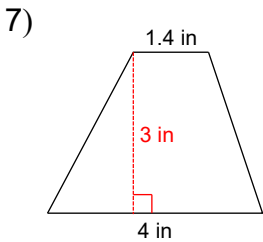
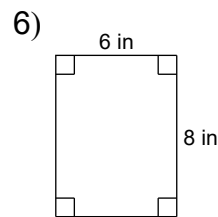
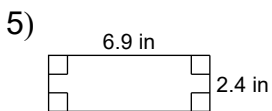


Find the measure of angle b.

Find the value of x.



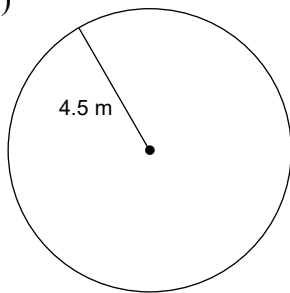
Find the area of each.



More Problems on Back!

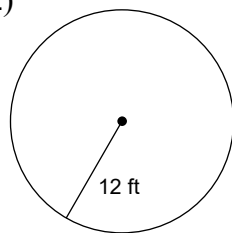
Find the circumference of the circle. Round to the nearest tenth.

11)



Find the area. Round to the nearest tenth.

12)

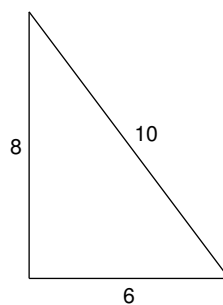


Find the diameter of the circle.

13) $\text{area} = 4\pi \text{ in}^2$

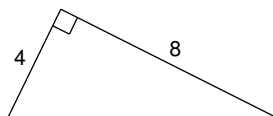
Do the following lengths form a right triangle?

14)

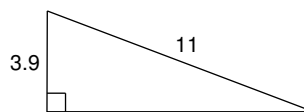


Find each missing length to the nearest tenth.

15)

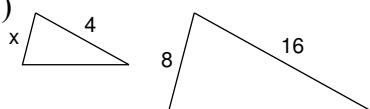


16)

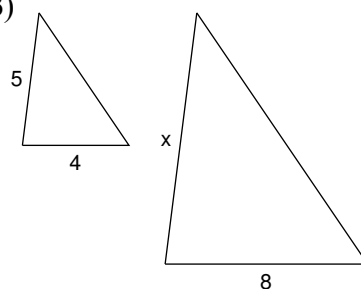


Each pair of figures is similar. Find the missing side.

17)



18)



Name:

Rising 8th Grade Summer Math (Pre-Algebra 7 Review) Worksheet 10

Polynomials

Name each polynomial by degree and number of terms.

1) $-10k^2 + 7$

2) $5p^3 + 2p^2 - 7$

3) $6n$

Simplify each expression.

4) $(5 + 5n^3) - (1 - 3n^3)$

5) $(6a - 3a^2) + (2a^2 - 3a)$

6) $(x^2 - x) + (8x - 2x^2)$

7) $7x(6x + 4y)$

8) $3n(n^2 - 6n + 5)$

9) $8r^2(4r^2 - 5r + 7)$

10) $2n^4 \times 5n^4$

11) $6x \times 6x^3$

12) $7v^3 \times 10u^3v^5 \times 8uv^3$

13) $\frac{2n^2}{n}$

14) $\frac{14x^4y^7}{6x^5y^4}$

15) $\frac{18x^8y^8}{10x^3}$

16) $(7y^4)^2$

17) $(3ab^4)^4$

18) $(2x^4y^4)^3$

Write the number in scientific notation.

19) 0.000000786

Write the number in standard notation.

20) 6.17×10^3

Name:

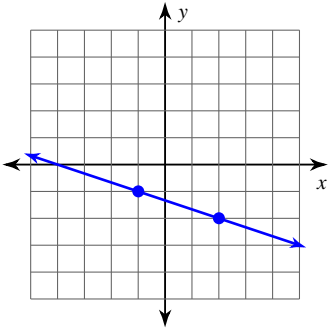
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Lines

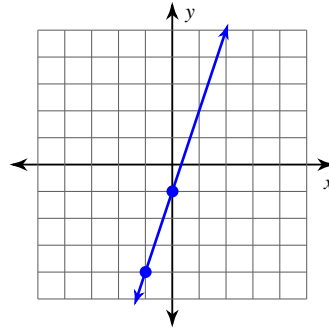
Slope

Find the slope of each line.

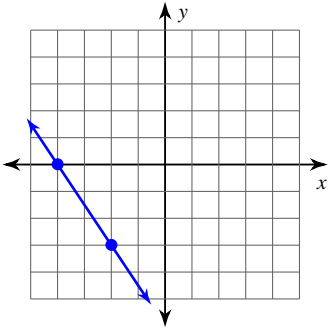
1)



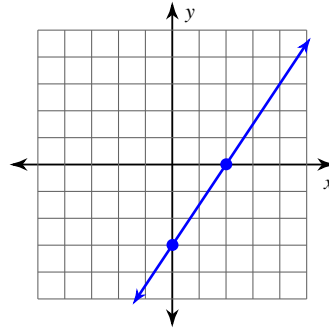
2)



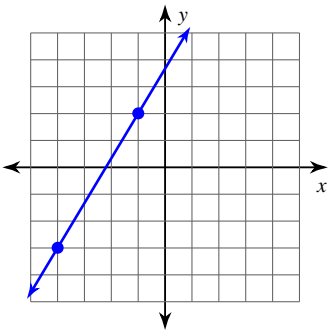
3)



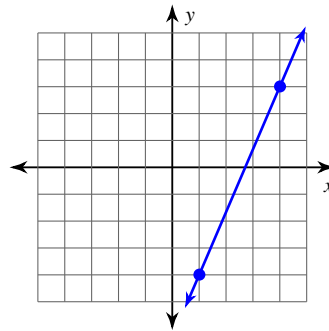
4)



5)



6)



More Problems on Back!

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

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

8) $(-3, 1), (-17, 2)$

9) $(-20, -4), (-12, -10)$

10) $(-12, -5), (0, -8)$

11) $(-19, -6), (15, 16)$

12) $(-6, 9), (7, -9)$