Rising 8th grade

6-week summer packet pacing guide:

Week one	Pre-module assessment 1 *4 pages*
Week two	Pre-module assessment 2x3 *7 pages*
Week three	Pre-module assessment 4x5 *4 pages*
Week four	Fractions/ decimals/ percent integers *3 pages*
Week five	Fraction operation/ integers *5 pages*
Week six	Equations/ integers *5 pages*

Pre-Module Assessment

Name _____ Date _____

1. Which equations represent the comparison statement 63 *is how many times as much as* 9? Choose **all** that apply.

   A. $63 = _____ \div 9$

   B. $63 \times _____ = 9$

   C. $_____ \times 9 = 63$

   D. $_____ \div 63 = 9$

   E. $63 \div 9 = _____$

2. Evaluate 85×10^4.

   _____

3. Order the numbers from least to greatest. Write one number in each box.

5.201	5	5.2	5.12	5.1

Least **Greatest**

© 2021 Great Minds PBC

This page may be reproduced for classroom use only.

4. Match each number with its expanded form. Write the letter for the expanded form from the given answer choices in each box.

Number	60.804	6.084	608.04
Expanded Form			

Answer Choices

A	$(6\times 1)+\left(8\times\frac{1}{100}\right)+\left(4\times\frac{1}{1{,}000}\right)$	**D**	$(6\times 10)+\left(8\times\frac{1}{10}\right)+\left(4\times\frac{1}{1{,}000}\right)$
B	$(6\times 1)+\left(8\times\frac{1}{10}\right)+\left(4\times\frac{1}{100}\right)$	**E**	$(6\times 100)+(8\times 1)+\left(4\times\frac{1}{100}\right)$
C	$(6\times 10)+\left(8\times\frac{1}{10}\right)+\left(4\times\frac{1}{100}\right)$	**F**	$(6\times 100)+(8\times 10)+\left(4\times\frac{1}{10}\right)$

5. Round the decimal 87.426 to each given place. Write one rounded number from the given answer choices in each box.

Place	Tens	Ones	Tenths	Hundredths
Rounded Number				

Answer Choices

80	87	87.4	87.42	87.43	87.5	88	90

© 2021 Great Minds PBC
This page may be reproduced for classroom use only.

6. Which expression is equivalent to $2xy + 3x$?

   A. $5xy$

   B. $2y(5x)$

   C. $2(xy + x)$

   D. $x(2y + 3)$

7. Indicate whether each expression is equivalent to -10, equivalent to 10, or not equivalent to -10 or 10.

Expression	Equivalent to -10	Equivalent to 10	Not Equivalent to -10 or 10
$7 + 3$			
$-7 + (-3)$			
$7 + (-3)$			
$-2 \times (-5)$			
-2×5			
$2 \times (-5)$			

8. Which expressions are equivalent to 2^3? Choose **all** that apply.

   A. 6

   B. 8

   C. 9

   D. 3×3

   E. $2 \times 2 \times 2$

© 2021 Great Minds PBC

This page may be reproduced for classroom use only.

9. Evaluate $3.5 \div 7$.

_____

10. Evaluate $5.6 + 2.41 - 4.3$.

_____

11. What is the value of $3.4(6.8)$?

A. 10.2

B. 20.82

C. 23.12

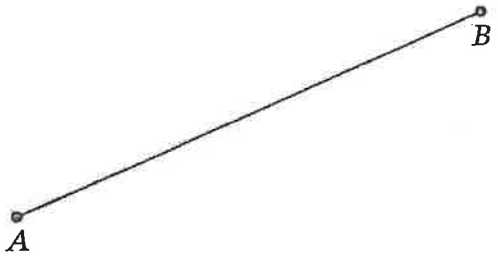
D. 231.2

© 2021 Great Minds PBC This page may be reproduced for classroom use only.

Pre-Module Assessment

Name _____ Date _____

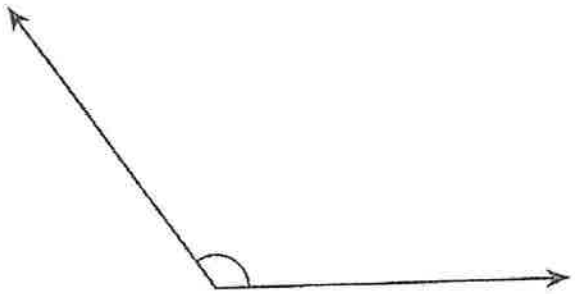
1. What is the length of $\overline{AB}$? Round your answer to the nearest quarter inch.



_____ inches

2. Use a protractor to measure the angle. Write the measurement to the nearest degree.

Estimate

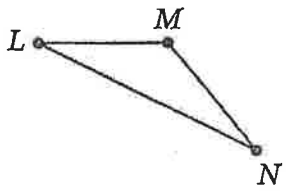
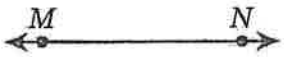
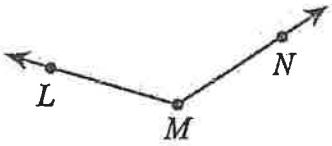


_____ °

© 2021 Great Minds PBC

This page may be reproduced for classroom use only.

3. Match each diagram with its correct notation. Write one notation from the given answer choices in each box.

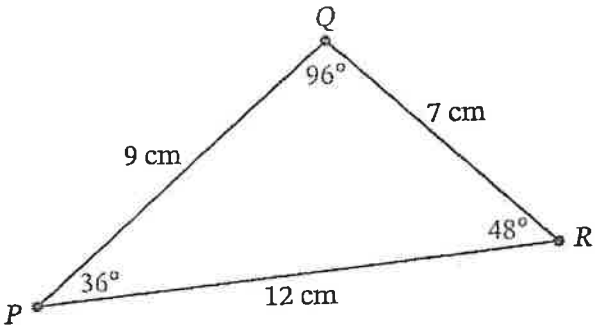
Diagram	Notation
	
	
	
	
	

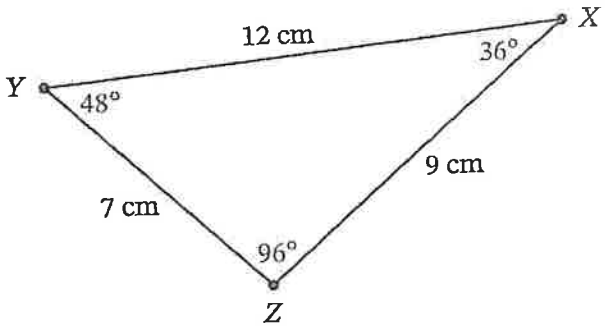
Answer Choices

$\overline{MN}$	$\overleftrightarrow{MN}$	$\overrightarrow{MN}$	$\overrightarrow{NM}$	$\angle MN$	$\angle LMN$	$\angle LNM$	$\triangle MN$	$\triangle LMN$

© 2021 Great Minds PBC
This page may be reproduced for classroom use only.

4. The triangles are identical.





Identify the corresponding part between the two triangles that matches the given side or angle of $\triangle PQR$. Write one corresponding part from the given answer choices in each box.

Given Triangle Part	Corresponding Triangle Part
$\overline{PQ}$	
$\overline{PR}$	
$\angle Q$	
$\angle R$	

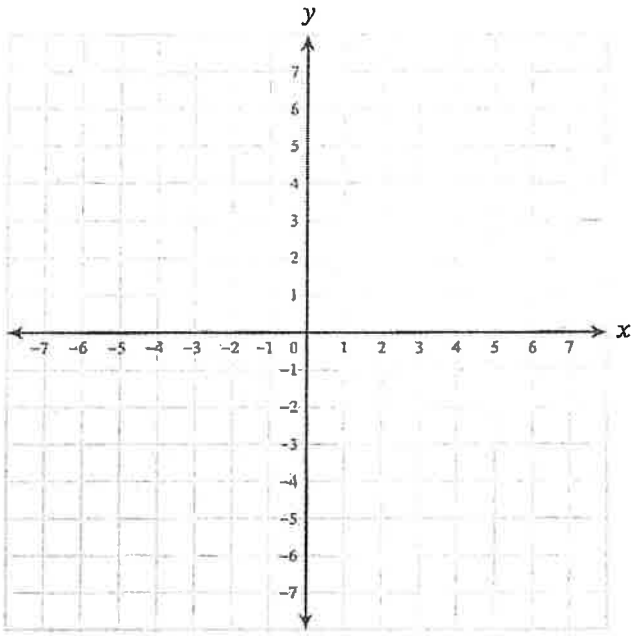
Answer Choices

$\overline{XY}$	$\overline{YZ}$	$\overline{XZ}$	$\angle X$	$\angle Y$	$\angle Z$

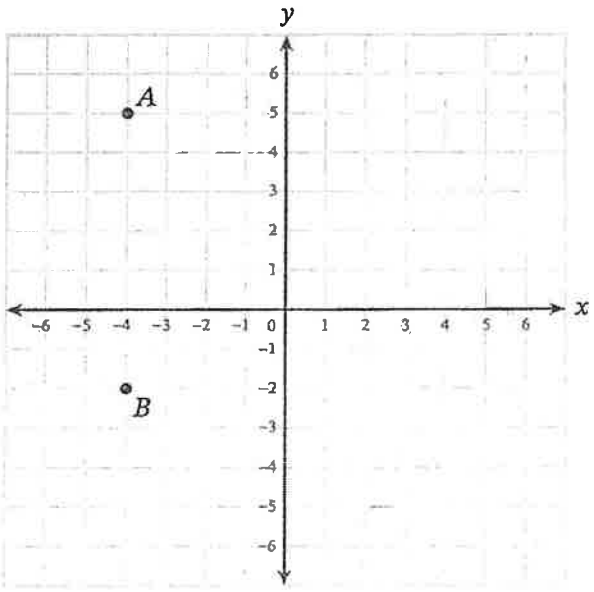
© 2021 Great Minds PBC

This page may be reproduced for classroom use only.

5. Plot the point (−3, 4).



6. What is the distance between point A and point B?



_____ units

© 2021 Great Minds PBC
This page may be reproduced for classroom use only.

7. Evaluate the expression $5^2 + 9^2$.

_____

8. Determine the value of the expression $\frac{3}{4}p + q$ when $p = 12$ and $q = 2$.

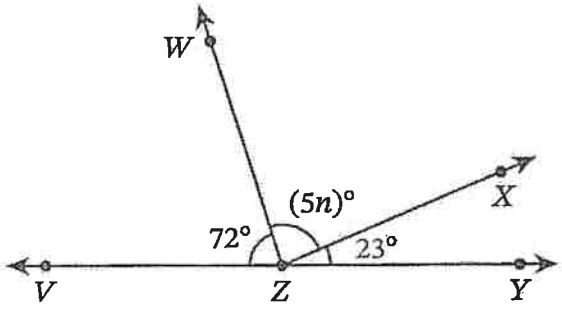
_____

9. Solve the equation $x + 5 = 13$.

_____

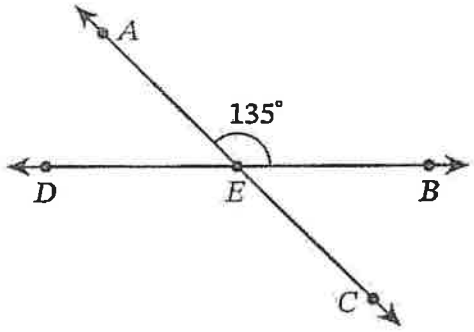
© 2021 Great Minds PBC This page may be reproduced for classroom use only.

10. Find the value of n.



_____

11. The measure of $\angle CED$ is $(10x - 7)°$.

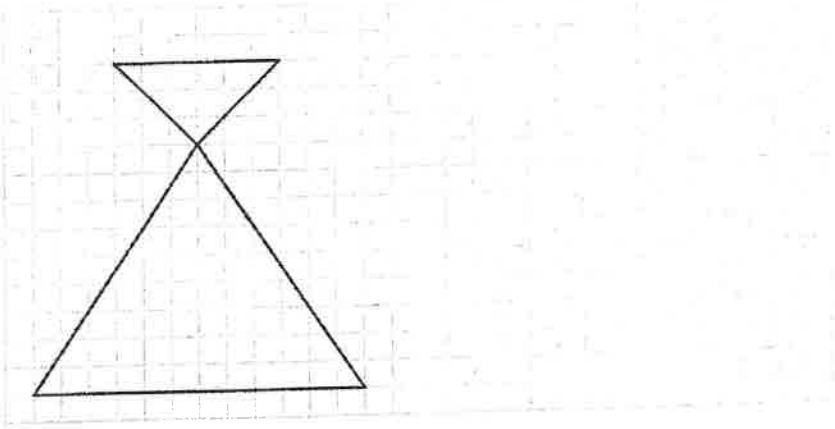


Find the value of x.

_____

© 2021 Great Minds PBC
This page may be reproduced for classroom use only.

12. Create a scale drawing of the geometric figure by using a scale factor of $\frac{1}{3}$.



13. Solve the equation $\frac{2}{3}x = 10$.

_____

14. Solve the equation for x.

$\frac{2}{5} = \frac{8}{x}$

_____

© 2021 Great Minds PBC
This page may be reproduced for classroom use only.

Pre-Module Assessment

Name _____ Date _____

1. Noor makes volcano lava for the science fair. The table shows the ratio relationship between the number of teaspoons of glitter and the number of teaspoons of baking soda in the recipe for the lava.

   Complete the table.

Number of Teaspoons of Glitter	Number of Teaspoons of Baking Soda
2	6
4	12
	21
9	

2. Which value of p is the solution to the equation $9 + 3(p + 3) = 24$?

   A. -1

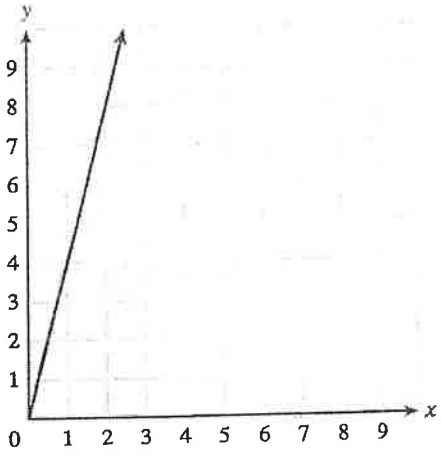
   B. 2

   C. 4

   D. 12

© 2021 Great Minds PBC This page may be reproduced for classroom use only.

3. Identify the constant of proportionality, or unit rate, in each proportional relationship. Write one constant of proportionality, or unit rate, from the given answer choices in each box.

Proportional Relationship	Constant of Proportionality or Unit Rate
	
$y = 4.25x$	
x: 0, 0.4, 1, 1.2 y: 0, 1.8, 4.5, 5.4	

Answer Choices

0	1.8	4	4.25	4.5	5.4

© 2021 Great Minds PBC

This page may be reproduced for classroom use only.

4. In 2 hours, Earth rotates a distance of about 2080 miles.

Part A

Complete the equation to represent the approximate distance d in miles that the Earth rotates in h hours.

$d =$ _____

Part B

About what distance does Earth rotate in $\frac{1}{2}$ hour?

_____ miles

5. What is the decimal form of $\frac{3}{11}$?

A. 0.27

B. $0.\overline{27}$

C. 3.6

D. $3.\overline{6}$

© 2021 Great Minds PBC This page may be reproduced for classroom use only.

6. Solve the equation $5(2x + 3) - 7x = 20$.

_____

7. Kabir sets a goal to raise a total of \$500 for a charity. He receives \$225 in donations.

   To raise more money toward his goal, Kabir organizes a car wash. The profit for each car washed is \$5.

   Part A

   Write an equation Kabir can use to find the number of cars c that must be washed to meet his goal of \$500.

   _____

   Part B

   How many cars must be washed to meet Kabir's goal of \$500?

   _____ cars

© 2021 Great Minds PBC
This page may be reproduced for classroom use only.

Converting Fractions (B)

Name: _____ Date: _____

Fill in the missing values. Use part-to-**whole** ratios.

	Fraction	Decimal	Percent	Ratio
1.	$\frac{3}{10}$			
2.	$\frac{1}{2}$			
3.	$\frac{7}{20}$			
4.	$\frac{3}{5}$			
5.	$\frac{3}{8}$			
6.	$\frac{1}{4}$			
7.	$\frac{7}{8}$			
8.	$\frac{3}{4}$			
9.	$\frac{2}{5}$			
10.	$\frac{7}{10}$			

Adding, Subtracting, Multiplying and Dividing Integers (D)

Name: _____ Date: _____ Score: _____

Calculate each sum, difference, product or quotient.

$-8 + 8 =$

$-3 \times (-9) =$

$32 \div (-8) =$

$-5 - 9 =$

$-7 - 2 =$

$-6 - (-7) =$

$8 + 5 =$

$-6 - (-4) =$

$6 + (-3) =$

$5 + (-7) =$

$8 + 6 =$

$8 \div 8 =$

$-6 - (-8) =$

$32 \div 4 =$

$-9 \times (-1) =$

$18 \div 9 =$

$18 \div (-6) =$

$4 - (-7) =$

$30 \div 6 =$

$-1 \times 1 =$

$-36 \div 4 =$

$6 + (-2) =$

$1 \times 2 =$

$20 \div 5 =$

$-3 \div (-3) =$

$3 \times 2 =$

$4 \div 2 =$

$-5 \times 2 =$

$-5 + (-8) =$

$-36 \div (-9) =$

$8 - 7 =$

$5 - 1 =$

$7 - 6 =$

$-7 + 3 =$

$45 \div 5 =$

$2 \times 8 =$

$-1 \times 5 =$

$-12 \div 4 =$

$-1 + (-6) =$

$7 \times 4 =$

$-5 - 3 =$

$-3 - (-7) =$

$-4 - (-6) =$

$16 \div 2 =$

$2 + (-7) =$

$-5 \times 5 =$

$81 \div 9 =$

$-1 - 9 =$

$-7 + (-5) =$

$-9 \times 3 =$

Converting Fractions (C)

Name: _____ Date: _____

Fill in the missing values. Use part-to-**whole** ratios.

	Fraction	Decimal	Percent	Ratio
1.	$\frac{3}{4}$			
2.	$\frac{1}{2}$			
3.	$\frac{7}{10}$			
4.	$\frac{4}{5}$			
5.	$\frac{1}{4}$			
6.	$\frac{1}{8}$			
7.	$\frac{7}{8}$			
8.	$\frac{7}{25}$			
9.	$\frac{3}{10}$			
10.	$\frac{2}{5}$			

Adding and Subtracting Two Fractions (A)

Name: _____ Date: _____ Score: _____

Calculate each result.

1. $\frac{34}{10} - \frac{4}{5} = \frac{34}{10} - \frac{8}{10} = \frac{26}{10} = \frac{13}{5} = 2\frac{3}{5}$

   Denominator | Solve | Simplify | Convert ↓

2. $\frac{40}{14} - \frac{1}{2} = \frac{\quad}{\quad} - \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

3. $\frac{13}{6} + \frac{53}{18} = \frac{\quad}{\quad} + \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

4. $\frac{1}{3} + \frac{9}{6} = \frac{\quad}{\quad} + \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

5. $\frac{5}{3} - \frac{6}{18} = \frac{\quad}{\quad} - \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

6. $\frac{14}{4} - \frac{7}{8} = \frac{\quad}{\quad} - \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

7. $\frac{19}{5} + \frac{7}{10} = \frac{\quad}{\quad} + \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

8. $\frac{7}{4} + \frac{6}{8} = \frac{\quad}{\quad} + \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

9. $\frac{4}{7} + \frac{49}{14} = \frac{\quad}{\quad} + \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

10. $\frac{5}{3} - \frac{9}{18} = \frac{\quad}{\quad} - \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

Multiplying and Dividing Proper and Improper Fractions (A)

Name: _____ Date: _____ Score: _____

Calculate each result.

1. $\frac{1}{5} \div \frac{3}{2} = \frac{1}{5} \times \frac{2}{3} = \frac{2}{15}$
   Inversion Result
2. $\frac{1}{3} \div \frac{9}{4} = \frac{\quad}{\quad} \times \frac{\quad}{\quad} = \frac{\quad}{\quad}$
3. $\frac{11}{4} \times \frac{1}{3} = \frac{\quad}{\quad}$
4. $\frac{1}{6} \times \frac{5}{2} = \frac{\quad}{\quad}$
5. $\frac{1}{4} \times \frac{3}{2} = \frac{\quad}{\quad}$
6. $\frac{4}{5} \div \frac{7}{3} = \frac{\quad}{\quad} \times \frac{\quad}{\quad} = \frac{\quad}{\quad}$
7. $\frac{3}{2} \times \frac{1}{8} = \frac{\quad}{\quad}$
8. $\frac{1}{5} \times \frac{16}{9} = \frac{\quad}{\quad}$
9. $\frac{1}{6} \div \frac{11}{7} = \frac{\quad}{\quad} \times \frac{\quad}{\quad} = \frac{\quad}{\quad}$
10. $\frac{1}{3} \div \frac{5}{4} = \frac{\quad}{\quad} \times \frac{\quad}{\quad} = \frac{\quad}{\quad}$

Multiplying and Dividing Mixed Fractions (A)

Name: _____ Date: _____ Score: _____

Calculate each result.

1. $1\frac{7}{8} \times 1\frac{2}{5} = \frac{15}{8} \times \frac{7}{5} = \frac{10}{40} = \frac{21}{8} = 2\frac{5}{8}$

   Convert ↑ Result Simplify Convert ↓

2. $4\frac{7}{8} \div 1\frac{3}{4} = \frac{\quad}{\quad} \div \frac{\quad}{\quad} = \frac{\quad}{\quad} \times \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

3. $4\frac{5}{7} \times 1\frac{1}{3} = \frac{\quad}{\quad} \times \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

4. $4\frac{2}{3} \div 2\frac{1}{9} = \frac{\quad}{\quad} \div \frac{\quad}{\quad} = \frac{\quad}{\quad} \times \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

5. $5\frac{3}{5} \times 2\frac{4}{5} = \frac{\quad}{\quad} \times \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

6. $5\frac{4}{7} \div 1\frac{4}{9} = \frac{\quad}{\quad} \div \frac{\quad}{\quad} = \frac{\quad}{\quad} \times \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

7. $4\frac{1}{7} \times 3\frac{2}{3} = \frac{\quad}{\quad} \times \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

8. $1\frac{1}{3} \times 1\frac{1}{4} = \frac{\quad}{\quad} \times \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

9. $2\frac{1}{2} \div 2\frac{1}{2} = \frac{\quad}{\quad} \div \frac{\quad}{\quad} = \frac{\quad}{\quad} \times \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

10. $1\frac{2}{9} \div 5\frac{1}{2} = \frac{\quad}{\quad} \div \frac{\quad}{\quad} = \frac{\quad}{\quad} \times \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

Adding, Subtracting, Multiplying and Dividing Integers (C)

Name: _____ Date: _____ Score: _____

Calculate each sum, difference, product or quotient.

$32 \div (-4) =$
$-7 \times 9 =$
$-3 + (-9) =$
$9 - 3 =$
$-5 + 9 =$
$4 + (-7) =$
$-7 - (-2) =$
$8 - (-7) =$
$-2 + (-9) =$
$3 - (-8) =$
$-7 - 3 =$
$6 - (-8) =$
$-16 \div (-8) =$
$45 \div (-5) =$
$-7 - 5 =$
$30 \div (-5) =$
$2 - 4 =$
$-36 \div (-9) =$
$-7 - 8 =$
$-5 - (-2) =$
$-8 \div (-8) =$
$81 \div (-9) =$
$9 \times (-2) =$
$-42 \div 7 =$
$-8 - (-5) =$

$-6 + (-9) =$
$-1 - 9 =$
$5 + 7 =$
$-36 \div 6 =$
$8 - (-2) =$
$-9 \times 4 =$
$3 - 4 =$
$-1 + 3 =$
$5 - 3 =$
$-4 + (-6) =$
$-2 - 2 =$
$-7 \times 6 =$
$1 + 5 =$
$4 \times 2 =$
$-54 \div (-6) =$
$-2 - (-7) =$
$5 \times (-8) =$
$3 - 7 =$
$24 \div (-3) =$
$2 - 6 =$
$3 + (-2) =$
$8 + 9 =$
$9 \times 8 =$
$3 \times (-3) =$
$-8 - 6 =$

Adding, Subtracting, Multiplying and Dividing Integers (B)

Name: _____ Date: _____ Score: _____

Calculate each sum, difference, product or quotient.

$7 \div 1 =$

$-9 - (-6) =$

$-24 \div 3 =$

$9 \times (-5) =$

$-7 \times (-5) =$

$1 - 8 =$

$-1 - (-6) =$

$-6 - (-5) =$

$7 + 9 =$

$5 - 8 =$

$-8 - 8 =$

$30 \div 6 =$

$18 \div 9 =$

$5 \times (-9) =$

$8 \times 5 =$

$56 \div 7 =$

$7 \times (-2) =$

$1 + 4 =$

$8 \times 6 =$

$-2 \times 6 =$

$2 - (-3) =$

$5 - (-4) =$

$-48 \div (-8) =$

$-7 - 8 =$

$4 + 2 =$

$-21 \div (-3) =$

$4 - (-6) =$

$2 - 7 =$

$-9 \times (-1) =$

$-9 - 4 =$

$-16 \div (-2) =$

$2 + 1 =$

$-7 + 4 =$

$1 + 7 =$

$81 \div (-9) =$

$-25 \div 5 =$

$1 - 3 =$

$72 \div (-8) =$

$-16 \div (-4) =$

$8 - 9 =$

$-1 \div 1 =$

$5 + (-1) =$

$-6 + 6 =$

$-4 + (-9) =$

$6 - 2 =$

$42 \div (-7) =$

$-6 - (-9) =$

$-5 + 2 =$

$6 \div (-2) =$

$-1 - (-2) =$

Adding, Subtracting, Multiplying and Dividing Integers (A)

Name: _____ Date: _____ Score: _____

Calculate each sum, difference, product or quotient.

$-9 \div 1 =$

$-8 - (-6) =$

$-5 - 8 =$

$-6 + (-4) =$

$-7 - (-4) =$

$14 \div (-2) =$

$7 + (-3) =$

$1 \times 6 =$

$9 - 9 =$

$8 - (-7) =$

$4 \times (-9) =$

$1 \times (-9) =$

$-4 \times 2 =$

$-7 - (-1) =$

$9 + 3 =$

$1 - 3 =$

$54 \div (-9) =$

$-1 + 8 =$

$4 + (-6) =$

$-20 \div (-5) =$

$49 \div (-7) =$

$2 + 8 =$

$-8 + (-2) =$

$-2 \times 7 =$

$-8 \times 1 =$

$1 \times (-7) =$

$-72 \div (-9) =$

$-4 + 7 =$

$2 + (-1) =$

$-48 \div (-8) =$

$1 - 1 =$

$6 + (-2) =$

$1 \times (-4) =$

$7 - 8 =$

$-5 + 9 =$

$5 + 7 =$

$-42 \div (-6) =$

$9 \times (-4) =$

$4 \times (-3) =$

$-4 + (-8) =$

$-3 - (-2) =$

$-9 + 8 =$

$-6 - 7 =$

$5 \times (-3) =$

$6 - 6 =$

$2 \div 2 =$

$-3 + (-3) =$

$-2 \times 2 =$

$-3 - 1 =$

$8 \times (-8) =$

Name : _____

One-Step Equations: Integers

Mixed Operations Level 2: S1

Solve each equation.

1) $3 + a = -13$

2) $y - 10 = -5$

3) $-6s = 35$

4) $-5 = -\frac{k}{8}$

5) $m + 2 = -7$

6) $\frac{b}{2} = -1$

7) $7 = t - 3$

8) $18z = -9$

9) $-\frac{p}{6} = 9$

10) $-4 + w = -12$

Name : _____

One-Step Equations: Integers

Mixed Operations Level 1: S1

Solve each equation.

1) $10 = z + 6$

2) $8y = 48$

3) $q - 12 = 1$

4) $18 = \frac{a}{2}$

5) $\frac{r}{3} = 7$

6) $11 = m - 4$

7) $t - 19 = 2$

8) $1 + s = 3$

9) $24 = 4c$

10) $\frac{v}{5} = 9$

Name : _____

Sheet 1

Two-Step Equations: Whole Numbers

Solve each equation.

1) $9c + 1 = 10$

2) $6y - 5 = 7$

3) $8 = 3a - 4$

4) $\frac{m}{5} + 9 = 11$

5) $13 + 7x = 27$

6) $17 - q = 6$

7) $\frac{n - 31}{4} = 2$

8) $1 + 2r = 35$

9) $42 + 5t = 8t$

10) $4p - 3 = 17$

Name : _____

Two-Step Equations: Integers

Solve each equation.

1) $5n + 5 = 45$

2) $\frac{y}{6} - 3 = -11$

3) $4(g - 1) = 24$

4) $\frac{v + 9}{15} = 0$

5) $-40 = 12x + 8$

6) $-2p - 3 = -19$

7) $13 = \frac{w - 14}{2}$

8) $36 = 1 + 7a$

9) $-9 = -11 + \frac{b}{8}$

10) $2q + 10 = 7q$

Printable Worksheets