

Dear Incoming 8th Graders,

You are expected to complete this Summer Math Packet to be best prepared for your scheduled math class in September. This packet is **due the first week of school** and will be worth a test grade.

Scoring/Grading:

The Summer Math Packet is worth a total of **30 points**:

- Each page of the packet has a value of **2 points** if totally complete and work is shown.
- Any partially completed pages with work shown will earn part credit (1 point).
- Incomplete pages (pages that are not done) earn no credit.
- After the packet is handed in, there will be a daily quiz on the material that was covered in it.

Directions:

- Complete each problem on all pages of the packet and **show all work**.
- The packet will also be posted on my web site: www.mathmakeslifeaddup.weebly.com
- Complete all work neatly and organized on the packet page or lined paper. Craftsmanship counts!
- It is best that you work without a calculator to strengthen your math fact fluency.
- Turn in your labeled and organized packet with all work.

Resources:

For examples and support you can reference any of the sites below and search the skill/concept from the top of each page.

- KhanAcademy.com
- YouTube.com or TeacherTube.com
- MathIsPower4u.com
- IXL.com
- Learnzillion.com
- Mathisfun.com

The front page of this packet must be signed by you (the student) and by a parent/guardian.

x _____
Student signature

x _____
Parent/Guardian signature

I'm looking forward to an exciting math adventure for the 2014-2015 school year!

Best,

Mrs. Kroopneck
7/8 Math Teacher
Brennan-Rogers Magnet School

Name _____

Summer Packet Math 8
Go Math 7 pages 7 - 28

Adding Integers

1. $8 + (-3)$

2. $-5 + 9$

3. $-6 + (-5)$

4. $-7 + (-7)$

5. $9 + (-12)$

6. $-11 + 4$

Subtracting Integers

1. $8 - (-3)$

2. $-5 - 9$

3. $-6 - (-5)$

4. $-7 - (-7)$

5. $9 - (-12)$

6. $-11 - 4$

Find the value of each expression.

1. $-6 + 20 + 4$

2. $9 - 4 - 11$

3. $-30 - 12 + 45$

4. $45 + 27 - 38$

5. $6 + 13 + (-5)$

6. $-12 + 8 - 3 + 1$

Name _____

Summer Packet Math 8
Go Math 7 pages 37 - 53

Multiplying and Dividing Integers

1. $8 \cdot (-3)$

2. $-5 \cdot 9$

3. $-6 \cdot (-5)$

4. $-7 \div (-7)$

5. $108 \div (-12)$

6. $-44 \div 4$

7. $-6 \cdot (-7)$

8. $-100 \div 10$

9. $120 \div (-30)$

Evaluate each expression.

1) $24 \div (-2) + 3$

2) $-4(-5) - 28$

3) $2(-4) - 10$

4) $-5 + 4 \cdot 10$

5) $-6 \div 2 + 2$

6) $48 \div (-12) + 4$

7) $10(-60) - 15$

8) $-55 + 4 \cdot 8$

9) $-2(-12) - 20 - 3$

Name _____

Summer Packet Math 8
(use online support materials if needed)

Operations with Decimals – Show all work for problems 1-10.

1. $6.53 + 18 + 26.008$

2. $28.43 + 0.002 + 1.9$

3. $4.59 - 0.399$

4. $7.06 - 5.49$

5. 28.9×0.103

6. 0.095×0.4

7. $3.941 \div 0.07$

8. $0.3784 \div 1.1$

9. 25.5×100

10. $25.5 \div 100$

Name _____

Summer Packet Math 8
(use online support materials if needed)
Go Math 7 page 67 - 75

Adding and Subtracting Fractions – Show all work for problems 1-4

1. $\frac{4}{7} + \frac{1}{3}$

2. $\frac{11}{15} + \frac{13}{25}$

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

4. $\frac{5}{6} - \frac{1}{12}$

Adding and Subtracting Mixed Numbers – Show all work for problems 1 – 4.

1. $20\frac{3}{8} + 14\frac{1}{2}$

2. $6\frac{1}{4} + \frac{7}{9}$

3. $18\frac{1}{7} - 12\frac{3}{7}$

4. $2\frac{1}{25} - 1\frac{4}{5}$

Name _____

Summer Packet Math 8
(use online support materials if needed)
Go Math 7 page 83 - 89

Multiplying and Dividing Fractions and Mixed Numbers – Show all work for problems 1 – 8.

1. $\frac{7}{20} \cdot \frac{5}{14}$

2. $\frac{11}{14} \cdot \frac{2}{33}$

3. $1\frac{4}{5} \cdot 13\frac{1}{3}$

4. $2\frac{1}{4} \cdot 1\frac{1}{15}$

5. $\frac{8}{9} \div \frac{14}{15}$

6. $\frac{3}{10} \div \frac{12}{25}$

7. $4\frac{2}{7} \div 5\frac{1}{4}$

8. $2\frac{1}{7} \div 1\frac{11}{14}$

Name _____

Summer Packet Math 8

Operations with Rational Numbers

Go Math 7 page 67 - 89

Find the value of each expression.

1. $-12 \div 4\frac{4}{5}$

2. $-\frac{3}{10}\left(\frac{5}{9}\right)$

3. $2\frac{1}{4} - 18$

4. $-5 + 1\frac{4}{5}$

5. $25.2 - 30.6$

6. $-13.8 + 9.2$

7. $-3(-3.5)$

8. $-12 \div 0.03$

Name _____

Summer Packet Math 8
Go Math 7 pages 62-63,138
(use online resources)

Fractions, Decimals, and Percent – Show all work.

Write each fraction or mixed number as a decimal.

1. $\frac{3}{5}$

2. $\frac{1}{6}$

3. $2\frac{1}{4}$

Write each decimal as a fraction in simplest form.

4. 0.35

5. 1.5

6. 0.125

Write each decimal as a percent.

7. 0.45

8. 2.54

9. 0.06

Write each percent as a decimal.

10. 24%

11. 7%

12. 300

Proportional Relationships

1. Based on the table below is the relationship between the cost and the pounds of bananas proportional? Explain your answer.

Pounds of Bananas	2	3	5
Price	1.38	2.07	3.45

Find the constant of proportionality k . Then write an equation for the relationship between x and y .

2.

x	2	4	6	8
y	12	24	36	48

$k = \underline{\hspace{2cm}}$

Equation: $\underline{\hspace{4cm}}$

3.

x	3	6	12	36
y	1	2	4	12

$k = \underline{\hspace{2cm}}$

Equation: $\underline{\hspace{4cm}}$

Name _____

Proportions and Percent

Find the percent of each number.

1. 50% of 85 2. 5% of 135 3. 200% of 89

Find the percent of change. Round to the nearest percent.

4. \$90 to \$65 5. \$20 to \$45

Percent Applications

6. Find the retail price of a \$24 hat with a markup of 40%.
7. Find the sale price of a \$50 jacket marked down 25%.
8. Find the final cost of a \$12 book with a 7% sales tax.

Name _____

Simplifying and Evaluating Expressions – Show all work.

Evaluate for $w = -2$, $x = 2$, $y = -1$, and $z = 3$.

1. $w + x - z$

2. $4y + w$

3. $(w + z)^2$

4. $w + y - x$

5. $z(3x + y)$

6. $w(y + z)$

Simplify each expression.

7. $-2m + 3m + 6 - 8$

8. $5(-2x + 4)$

9. $(3x + \frac{1}{2}) + (4x + \frac{3}{4})$

10. $(-0.5x - 2) + (2.5x + 1.5)$

Solving One-Step Equations

You can use the **Properties of Equality** to Solve Equations.

Key Concept	Properties of Equality
Words	If you add, subtract, multiply or divide the same number to each side of an equation, the two sides remain equal.
Symbols	For any numbers a , b , and c , if $a = b$, then $a + c = b + c$ $a - c = b - c \text{ or } a + (-c) = b + (-c)$ $a(c) = b(c)$
	And if $c \neq 0$, then $\frac{a}{c} = \frac{b}{c}$

Solve the following equations using the Properties of Equality. Show all work for 1-6.

1) $x + 5 = -5$

2) $y - 0.7 = -2.5$

3) $\frac{2}{5}x = -30$

4) $\frac{x}{2} = -3$

5) $x + (-4) = 9$

6) $y - (-6) = 28$

Name _____

Solving Two Step Equations

Examples:

Solve: $2x + 1 = 9$

$$\begin{aligned} \frac{-1}{2} &= \frac{-1}{2} \\ \frac{2x}{2} &= \frac{8}{2} \\ x &= 4 \end{aligned}$$

- Step 1 - First, undo addition by adding the inverse (opposite)
- Step 2 - Then, undo the multiplication

Solve: $-4 = \frac{n}{6} + 11$

$$\begin{aligned} \frac{-11}{6} &= \frac{-11}{6} \\ (6) -15 &= \frac{n}{6} (6) \\ -90 &= n \end{aligned}$$

- Step 1 - First, undo addition by adding the inverse (opposite)
- Step 2 - Then, undo the division

Solve the equations. Show all work for 1 – 6.

1. $5x - 2 = 3$

2. $4 - x = 10$

3. $5m + 3 = 48$

4. $\frac{x}{-5} + 8 = -12$

5. $8 = -3x - 7$

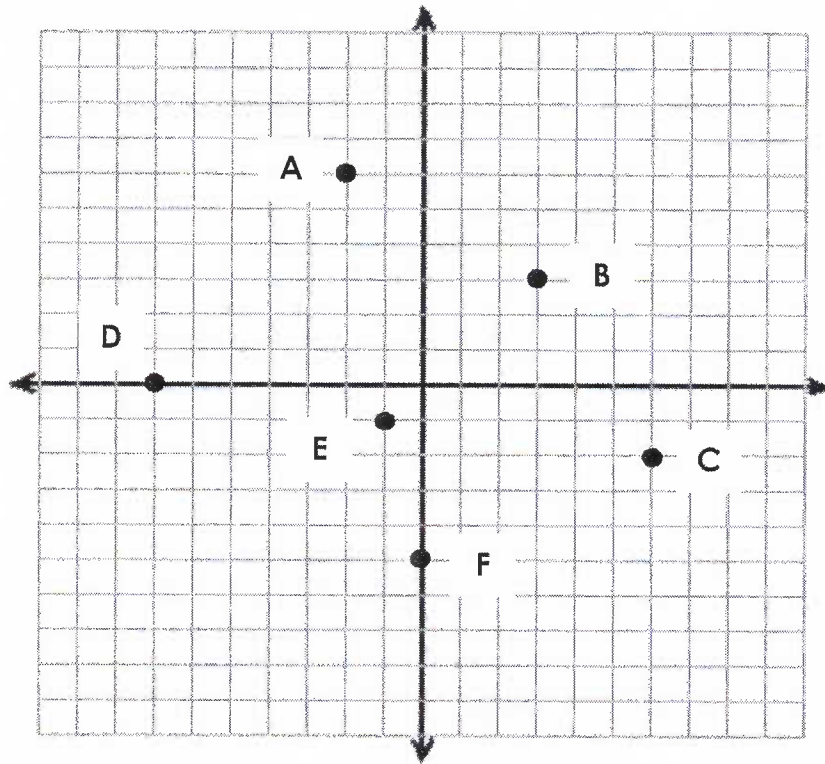
6. $-2 = 3 + \frac{n}{9}$

Name _____

Graphing on a Coordinate Plane

Graph and label each ordered pair on the coordinate plane.

- 1. G (3, 0)
- 2. H (-2, 5)
- 3. I (2, -3)
- 4. J (0, -3)
- 5. K (3, 6)
- 6. L (-1, -4)



Write the ordered pairs for each point on the graph above.

A _____

B _____

C _____

D _____

E _____

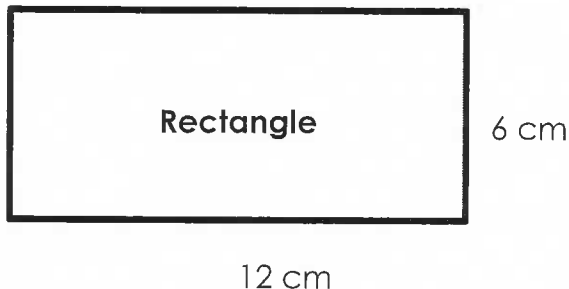
F _____

Name _____

Perimeter and Area

Find the perimeter and area of each figure. Show all work.

1. Area = _____
Perimeter = _____



2. Area = _____
Perimeter = _____

