

Welcome to 8th grade Math at McKeel Academy of Technology!

We are looking forward to meeting you in August. Your teachers are busy preparing themselves for another great year and **you** have to do some work over the summer to help **yourself** prepare as well.

The purpose of this summer assignment is to enable you to practice the basic skills needed to be successful in 8th grade math. This assignment is intended to be spread out over the **entire** summer, not completed in a day or two. If you complete 1 page each week during the summer, you will have the entire packet finished by the time your vacation is over.

This summer packet will be collected when you return in August and will be your first grade of the year. You must use a pencil and all work **MUST** be shown on the paper or on a separate piece of paper that you attach to the page. If you find a section that you have difficulty with, then we highly recommend that you use the resources listed below to help you master the skill. You are allowed to use a calculator to check your work when finished.

Listed below are web sites you can use for help or additional practice.

Have a great summer and we'll see you in August.

Websites that include instruction:

<http://www.aaamath.com/>

<http://www.math.com/>

<http://www.khanacademy.org>

Integer games – We recommend you spend time using these sites to improve your skills with integers.

<http://www.onlinemathlearning.com/integer-games.html>

<http://www.funbrain.com/linejump/index.html>

<http://www.gamequarium.com/integers.html>

<http://www.homeschoolmath.net/online/integers.php>

http://www.mathgoodies.com/games/integer_game/

<http://www.ezschool.com/Games/IntegerBall.html>

Websites that consist of a variety of Math games:

<http://www.funbrain.com/kidscenter.html>

<http://www.aplusmath.com/>

<http://www.coolmath-games.com/>

http://www.internet4classrooms.com/grade_level_help.htm

Name _____

School attended in 7th grade _____

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Terminating and Repeating Decimals

Write each fraction or mixed number as a decimal. Use bar notation if the decimal is a repeating decimal.

1. $\frac{16}{20}$	2. $\frac{30}{120}$	3. $1\frac{7}{8}$
4. $\frac{1}{6}$	5. $\frac{11}{40}$	6. $5\frac{13}{50}$

Write each decimal as a fraction or mixed number in simplest form.

10. 0.26	11. 0.75	12. $0.\overline{8}$
13. 0.1	14. 4.48	15. $1.\overline{5}$

12***Adding and Subtracting Fractions with Unlike Denominators***

Add or subtract. Write the sum or difference in simplest form.

1. $\begin{array}{r} \frac{1}{5} \\ + \frac{3}{4} \\ \hline \end{array}$	2. $\begin{array}{r} \frac{5}{6} \\ - \frac{7}{12} \\ \hline \end{array}$	3. $\begin{array}{r} \frac{3}{8} \\ + \frac{11}{24} \\ \hline \end{array}$
4. $\begin{array}{r} \frac{7}{9} \\ - \frac{11}{36} \\ \hline \end{array}$	5. $\begin{array}{r} \frac{7}{10} \\ + \frac{1}{4} \\ \hline \end{array}$	6. $\begin{array}{r} \frac{5}{16} \\ + \frac{1}{2} \\ \hline \end{array}$

13***Mixed Numbers and Improper Fractions***

Write each mixed number as an improper fraction.

1. $6\frac{1}{4}$	2. $3\frac{7}{8}$	3. $5\frac{3}{4}$
4. $7\frac{1}{6}$	5. $9\frac{4}{9}$	6. $2\frac{9}{16}$

14***Adding and Subtracting Mixed Numbers***

Add or subtract. Write each sum or difference in simplest form.

$\begin{array}{r} 1. \quad 6 \\ - 3\frac{1}{6} \\ \hline \end{array}$	$\begin{array}{r} 2. \quad 4\frac{5}{6} \\ + 5\frac{1}{4} \\ \hline \end{array}$	$\begin{array}{r} 3. \quad 18\frac{3}{8} \\ - 12\frac{3}{4} \\ \hline \end{array}$
$\begin{array}{r} 4. \quad 15\frac{1}{2} \\ + 9\frac{2}{5} \\ \hline \end{array}$	$\begin{array}{r} 5. \quad 11\frac{7}{24} \\ - 6 \\ \hline \end{array}$	$\begin{array}{r} 6. \quad 41\frac{7}{18} \\ - 32\frac{1}{2} \\ \hline \end{array}$

15***Multiplying Fractions and Mixed Numbers***

Multiply. Write each product in simplest form.

$1. \quad \frac{21}{40} \times 1\frac{19}{21}$	$2. \quad \frac{45}{64} \times 5\frac{1}{3}$
$3. \quad 12\frac{1}{2} \times \frac{5}{16}$	$4. \quad 4\frac{1}{3} \times \frac{9}{52}$

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Dividing Fractions and Mixed Numbers

Divide. Write each quotient in simplest form.

1. $1\frac{4}{5} \div \frac{3}{5}$	2. $8\frac{2}{5} \div 3\frac{1}{2}$
3. $\frac{8}{9} \div 4$	4. $2\frac{4}{5} \div \frac{7}{15}$

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Proportions

Solve each proportion.

1. $\frac{2}{3} = \frac{a}{18}$	2. $\frac{b}{7} = \frac{48}{56}$	3. $\frac{8}{9} = \frac{24}{p}$
4. $\frac{7}{t} = \frac{21}{75}$	5. $\frac{9}{10} = \frac{x}{110}$	6. $\frac{5}{k} = \frac{25}{60}$

19**Fractions, Decimals, and Percents**

Write each percent as a fraction in simplest form and as a decimal.

1. 12%	2. 125%	3. 96%
4. 1.7%	5. 5.75%	6. 45%

Write each decimal as a fraction in simplest form and as a percent.

7. 0.36	8. 1.94	9. 0.0425
10. 0.5	11. 0.85	12. 5.2

Write each fraction as a decimal and as a percent.

13. $\frac{64}{100}$	14. $\frac{5}{8}$	15. $\frac{18}{20}$
16. $\frac{41}{50}$	17. $4\frac{3}{4}$	18. $\frac{7}{10}$

Write each ratio as a fraction in simplest form.

1. 4 busses for 80 students	2. 15 cats out of 39 pets
3. 6 pairs of jeans out of 10 pairs of pants	4. 10 roses in a bouquet of 15 flowers

Write each rate as a unit rate. Round to the nearest hundredth if necessary.

7. 175 miles in 2.5 hours	8. \$25 for 6 packages of light bulbs												
9. 100 meters in 15.5 seconds	10. \$285 for 30 hours												
11. A grocery store sells three different sizes of orange juice. Which container is the better buy? Explain.	<table border="1"><thead><tr><th>Container</th><th>Size (oz)</th><th>Price (\$)</th></tr></thead><tbody><tr><td>A</td><td>64</td><td>3.75</td></tr><tr><td>B</td><td>80</td><td>5.00</td></tr><tr><td>C</td><td>128</td><td>6.25</td></tr></tbody></table>	Container	Size (oz)	Price (\$)	A	64	3.75	B	80	5.00	C	128	6.25
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25***Adding and Subtracting Integers*****Add or subtract.**

1. $12 + 20$	2. $17 - 11$	3. $-33 + 22$
4. $18 - 23$	5. $-10 + (-8)$	6. $14 + (-5)$
7. $16 - 17$	8. $3 - (-5)$	9. $24 - (-7)$

28***Multiplying and Dividing Integers*****Multiply or divide.**

1. $-25(4)$	2. $-120 \div (-60)$	3. $18 \div 3$
4. $-6(-16)$	5. $14(5)$	6. $\frac{-28}{2}$
7. $-38 \div (-19)$	8. $-15(-2)$	9. $\frac{-42}{-3}$

26**Using Order of Operations with Powers**

Evaluate each expression.

1. $6^2 + 15 \div 3$	2. $20 - (3^2 + 1) + 2$	3. $3^3 - (3 + 1) \times 3$
4. $4^3 - 20 \div 2$	5. $15 + 5^2 \div 5$	6. $45 - 8^2 \div 2$
7. $15 \div 3 \times 2^2$	8. $7 \times (3^2 - 1) + 5$	9. $18 \div 3 + (7^2 - 1)$

31**One-Step Equations**

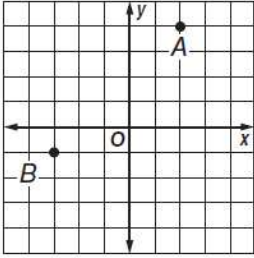
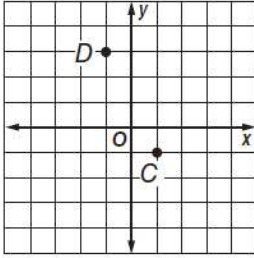
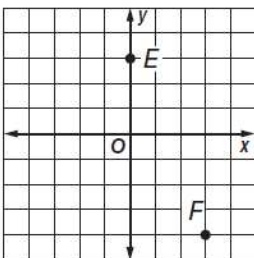
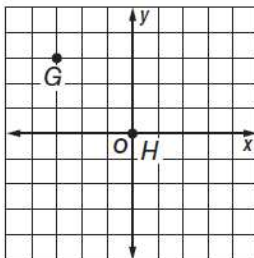
Solve each equation. Check your solution.

1. $17 + p = -33$	2. $12 = w - 8$	3. $5x = 30$
4. $\frac{m}{3} = -10$	5. $n + (-39) = 55$	6. $18 = q - 7$

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Graphing Points on a Coordinate Plane

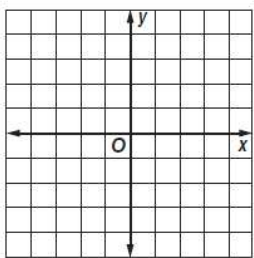
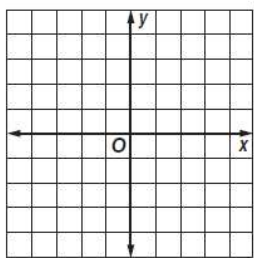
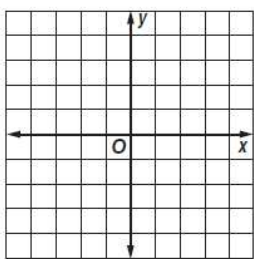
Name the ordered pair for each point graphed.

<p>1.</p> 	<p>2.</p> 
<p>3.</p> 	<p>4.</p> 

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Graphing Points on a Coordinate Plane

Graph each ordered pair.

<p>1. $A(4, 3)$, $B(-2, 0)$</p> 	<p>2. $C(3, -1)$, $D(-4, 1)$</p> 
<p>3. $E(0, -4)$, $F(3, 2)$</p> 	<p>4. $G(-2, -3)$, $H(2, 1)$</p> 