



Southington Public Schools

K-12 Curriculum Coordinators

Betsy Chester

Language Arts/Reading
(860) 628-3223 ext. 236

Dale A. Riedinger

Science/Mathematics
(860) 628-3223 ext. 340

Dear Middle School Math Students,

Attached you will find a comprehensive set of math problems which reflect the math skills you have worked on this year and should have mastered. It is the goal of the Math Department that you have a successful and enjoyable transition into your next grade level math course. We need you to practice these math skills and we encourage you to keep up these skills in several ways: first through solving the problems in this packet and second by visiting the websites that are listed after each section of the packet.

If you lose the packet you can find a copy at your MS website homepage or find the same packets at:

<http://www.southingtonschools.org>

ABOUT US

CURRICULUM and INSTRUCTION

K-8 MATH

GRADES 6-8

Summer Packets

Also there will be a limited number of copies in the Main office of each school.

Upon returning to school, your teacher will check your packets for completion and count it as your first homework grade. In order to receive credit you must attempt each problem and show any work needed to complete it. **NO CALCULATOR** may be used.

If you have a question or concern about a problem note that on your packet and it will be reviewed during the first few days of school. After you review this packet in class there will be a short assessment based on these skills. As an additional means of support, I will be happy to help any student who emails a concern they are having. My email address is:

rburdick@southingtonschools.org

Please do your **BEST** work!

Sincerely,

Rosemary Burdick
Middle School Math Specialist

Name: _____

Directions: Please show all your work and NO Calculator.

Order of Operations

1) $35 \div 7 \times 2 - 4$

2) $12 + 16 \div (3 + 1)$

3) $2^5 + 7(9 - 1)$

<http://www.funbrain.com/cgi-bin/shtml.cgi?A1=../algebra/index.html>

Work your way through this activity starting with the easiest – to the hardest using all operations.

Expressions

Evaluate when $w = 2$ $x = 3$ $y = 5$ $z = 6$ $p = 9$

1) $y + 3.4$

2) $2p + 5.4$

3) $\frac{2.5w + 2.5}{.5}$

4) $\frac{x^2}{p}$

5) $2.1z + p$

Equations

Solve each equation. Show your work

1) $a + 7 = 16$

2) $4d = 60$

3) $15 = \frac{X}{3}$

4) $h - 22 = 67$

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<http://www.math-play.com/One-Step-Equation-Game.html>

Hoop Shot is a “basketball” game – that reviews one-step equations

Name the Property

1) $2 \times (3 \times 7) = (2 \times 3) \times 7$

2) $6 + 3 = 3 + 6$

3) $18 \times 1 = 18$

4) $8 + (-8) = 0$

5) $2(8 + 2) = 2(8) + 2(2)$

Integers

1) $5 + (-8) =$

5) $-30(5) =$

2) $-11 + (-12) =$

6) $-10(-9) =$

3) $-16 - 14 =$

7) $-24 \div -8 =$

4) $6 - (-31) =$

8) $36 \div -4 =$

<http://www.math-play.com/integers-game.html>

Walk the Plank is a game that reviews addition and subtraction of integers.

<http://www.math-play.com/Integers-Jeopardy/Integers-Jeopardy.html>

This is a jeopardy game to review all operations with integers. You can play this by yourself or with a friend.

<http://www.aaamath.com/g76-absolute-value.html>

<http://www.aaamath.com/g76-mult-negative.html>

<http://www.aaamath.com/g76-div-negative.html>

The above websites are not games – they are a learning unit. I would suggest a review of absolute value.

Solve each equation

1) $6 + y = -18$

4) $-9x = -63$

2) $x - 18 = -2$

5) $-56 + y = 40$

3) $p - 11 = -5$

6) $32 = -2f$

<http://www.aplusmath.com/Games/PlanetBlast/index.html>

This is a game to solve one-step equations

<http://www.bbc.co.uk/education/mathsfile/shockwave/games/postie.html>

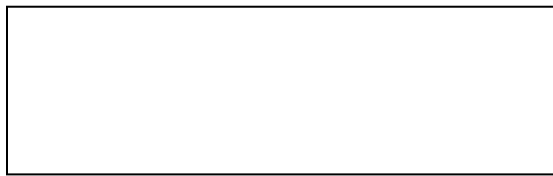
Postman Phil – from the BBC

http://www.harcourtschool.com/activity/escape_planet_6/

Escape Planet X is a game matching verbal to algebraic expressions

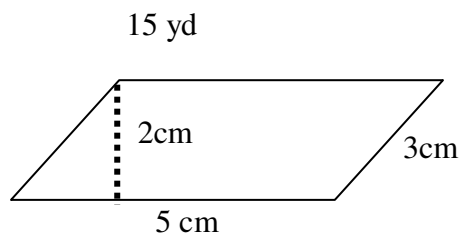
Geometry

Find the perimeter and area of each



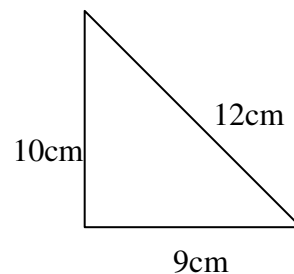
P = _____

A = _____



A = _____

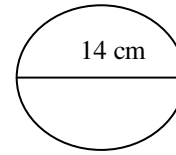
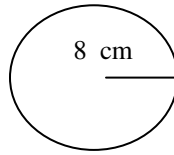
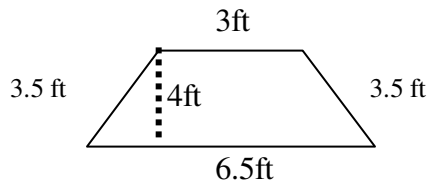
P = _____



A = _____

P = _____

Find the area of:



A = _____

A = _____ A = _____

P = _____

C = _____ C = _____

Prime Factorization

1) 93

2) 425

Fractions

1) $8\frac{3}{7} - 2\frac{1}{2}$

4) $3\frac{6}{7} \times 2\frac{1}{10}$

2) $2\frac{1}{8} + 6\frac{9}{10}$

5) $2\frac{1}{2} \div 3\frac{1}{3}$

3) $\frac{6}{7} \div \frac{10}{11}$

6) $5\frac{1}{8} \times 6\frac{6}{11}$

Metric

1) 660m = _____ km

2) 5.7m = _____ cm

3) 543 mL = _____ L

4) 2,640 mL = _____ L

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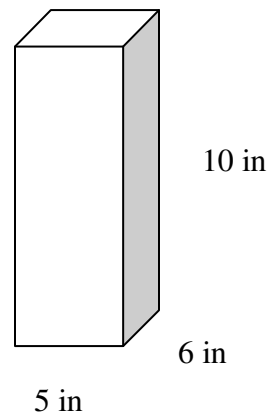
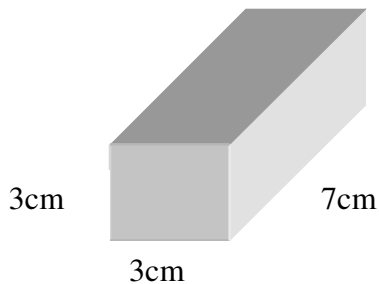
5) 250.3 kL = _____ L

6) 89 km = _____ m

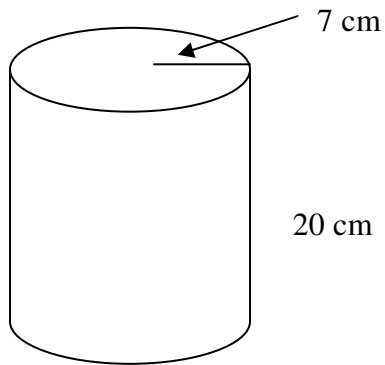
Percent

- 1) Find 80% of 80
- 2) What is 95% of 600?
- 3) What is 75% of 240?
- 4) 50 is 20% of what number?
- 5) What percent of 20 is 4?
- 6) 10 is 5% of what number?
- 7) What % of 90 is 36?
- 8) 73 is 20% of what number?
- 9) 85% of 190 is what number?

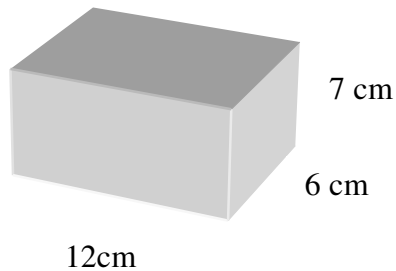
Find the volume of:



Use the formula $V = \pi r^2 h$



Find the surface area of:



Word Problems

- 1) Terry wants to use a cookie recipe that makes 36 cookies but wants to reduce the number of cookies to 24. If the recipe specifies using 2 cups of sugar, how much sugar will he need? (HINT: THINK DOZEN)

- 2) Ed earned \$112 for 8 hours of work. At this rate, how much will he earn of 40 hours of work?

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- 3) Rita traveled 1,250 miles the first 3 days of her trip. At this rate how long will it take her to travel 1,875 miles?
- 4) An architect built a model of a 220 ft tall building. The model is 25 inches tall and 10 inches wide. How wide is the actual building?

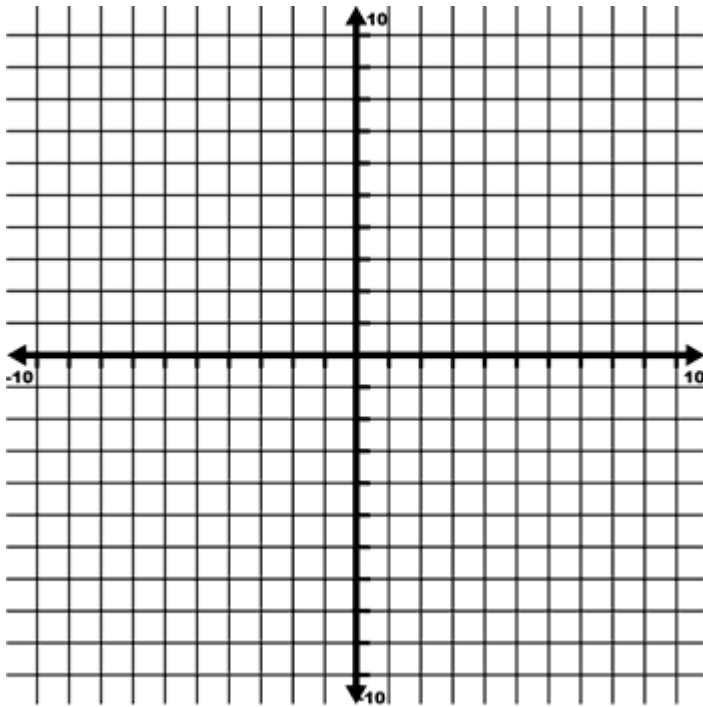
Variables and Patterns:

- 1) Use the rule to complete the table and then graph.

$$y = x + 4$$

X	1	2	3	10	20
Y					

Write: What do you notice about the changes in X compared to the changes in Y?



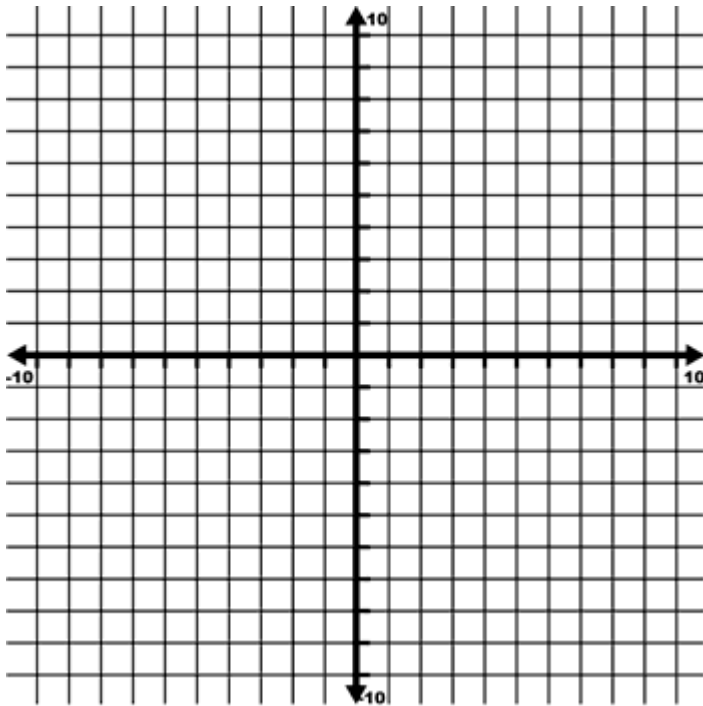
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2) Use the rule to complete the table

$$y = \left(\frac{1}{2}\right)x$$

X	2	4	6	8	10
Y					

Write: What do you notice about the changes in X compared to the changes in Y?



3) Write a rule for the relationship between the variables represented in the table below.

X	Y
1	4
2	8
3	12
4	16
5	20
6	24

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- 4) A typist types 45 words per minute.
- Write a rule to represent the relationship between the number of typed words and the time in which they are typed.
 - How many words can the typist type in 25 minutes? Write and solve an equation to answer this.
 - How long will it take the typist to type 2000 words? Write and solve an answer to answer this.

Math Videos:

http://www.gamequarium.org/dir/SqoolTube_Videos/Math/

This is a free site for you to watch math videos if you need help with a skill.

www.classzone.com

Click: Middle School Math

State: CT

GO....

Math Course 2

eworkbook

This is a great site for you to use. You might want to try the eworkbook in these areas:

Chapter 1: Number Sense, Patterns, and Algebraic Thinking

Chapter 2: Decimal Operations

Chapter 5: Fraction Operations

Chapter 6: Integers

Chapter 8: Ratios

Chapter 9: Percents

Each chapter is broken down into lessons. If you try these lessons – show your work and do not use a calculator – print them out and bring them back to school with you.