



Palestine Junior High
Incoming 8th Grade Summer Math Project



PURPOSE: This math project was created not only to offer students entering 8th grade an opportunity to practice the necessary skills needed to excel in mathematics in the upcoming school year, but also to apply some of these skills to real-life situations.

The summer assignment will include five parts:

- Part 1 – Create a Number System
- Part 2 – Prisms in the Real World
- Part 3 – Two-Step Equations Review
- Part 4 – Slope & Y-Intercept Review
- Part 5 – Proportions Review

PARENT/GUARDIAN RESPONSIBILITIES - HOW TO SUPPORT YOUR STUDENT:

1. Set up a schedule with your student to break the assignment into manageable parts throughout the summer. A sample calendar has been provided.
2. Monitor your student's progress on a weekly basis.
3. Encourage your student to complete the entire project.
4. See Math Websites Resource Page for assistance.
5. **Due date: First day of school (will count as one project grade).**

PARENT SIGNATURE: _____

STUDENT RESPONSIBILITIES:

- Attempt to answer every question and complete all parts of the project.
- Show all your work. Leave nothing blank.
- Do the best you can without a calculator.
- If you need help, ask your parent/guardian to use the Math Websites Resource Page for assistance.
- Turn in your completed summer packet to your 8th grade math teacher by the first day of school. This will count as a major project grade.

GRADING: This summer assignment will count as one project grade for the first six weeks period of 8th grade. Each section is worth 20 points.

CONTACT: You can e-mail Mrs. Zerita Thomas at zjohnson-thomas@palestineschools.org or Mrs. Kaysi Vaught at kvaughn@palestineschools.org for any questions or assistance.

ENJOY YOUR SUMMER!

Math Websites Resource Websites

Khan Academy

<https://www.khanacademy.org/>

Khan Academy is a non-profit educational website created in 2006 by educator Salman Khan to provide "a free, world-class education for anyone, anywhere." The website features thousands of educational resources, including a personalized learning dashboard, over 100,000 exercise problems, and over 5,000 micro lectures via video tutorials stored on YouTube teaching mathematics, history, healthcare, medicine, finance, physics, general chemistry, biology, astronomy, economics, cosmology, organic chemistry, American civics, art history, macroeconomics, microeconomics, and computer science. All resources are available for free to anyone around the world. Khan Academy reaches about 10,000,000 students per month and has delivered over 300,000,000 lessons.

Jenny Eather's a Math Dictionary for Kids

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

A Math Dictionary for Kids is an animated, interactive online math dictionary for students, which explains over 600 common mathematical terms and math words in simple language.

Math.com – World of Math Online

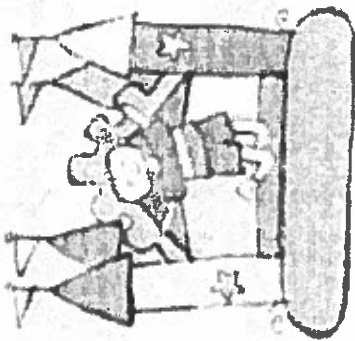
<http://math.com/>

Free math lessons and math homework help from basic math to algebra, geometry and beyond. Students, teacher, parents and everyone can find solutions to their math problems.

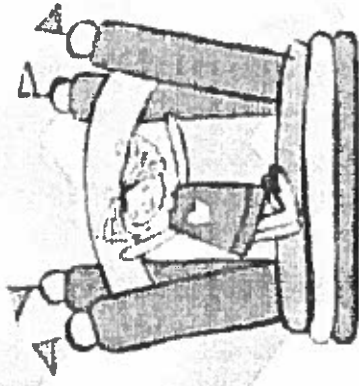
Math Drills

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

An excellent source for reinforcement and drills on various topics of middle school math; includes number sense and pre-algebra drills (Includes seasonal math, flash cards and graphing paper).

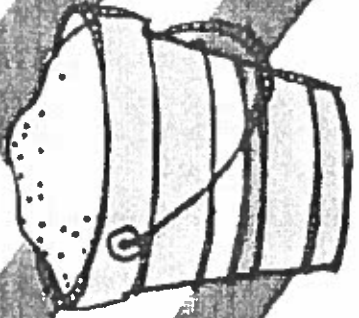
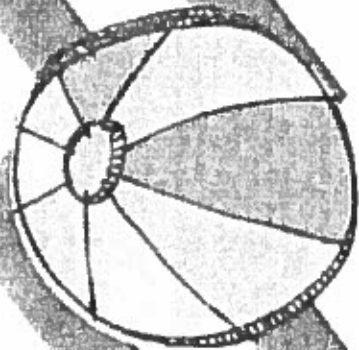


JUNE 2018

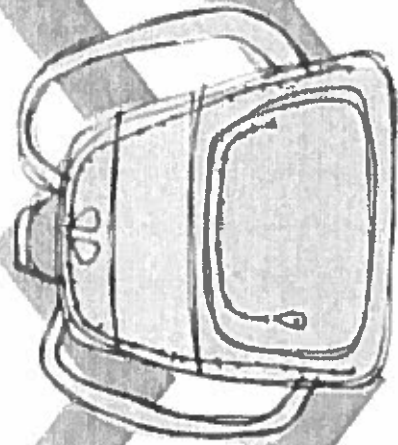


Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3 Begin "Create a Number System"	4	5	6	7	8	9
10	11	12	13	14	15	Complete "Create a Number System" 16
17 Begin "Prisms in the Real World"	18	19	20	21	22	23
24	25	26	27	28	29	Complete "Prisms in the Real World" 30

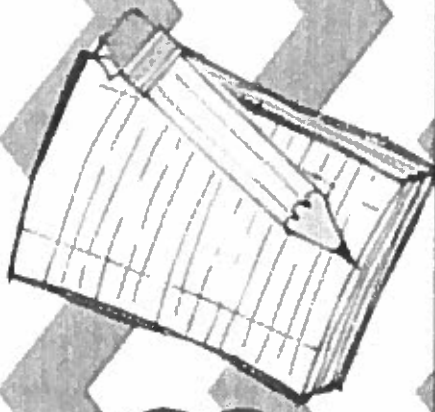
JULY 2018



Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1 Begin "Two-Step Equations Review"	2	3	4	5	6	7
8	9	10	11	12	13	14 Complete "Two-Step Equations Review"
15 Begin "Slope & Y- Intercept Review"	16	17	18	19	20	21
22	23	24	25	26	27	28 Complete "Slope & Y- Intercept Review"
29 Begin "Proportions Review"	30	31				



August 2018



Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6	7	8	9	10	Complete "Proportions Review"
12 Final review of project.	13	14	15 First Day of School	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Create a Number System Diagram

Part 1: In the space below, create a visual representation of the Number System. Be sure to include the following number sets: Real Numbers, Rational Numbers, Integers, Whole Numbers, Natural Numbers.

Part 2: In each section, include 10 examples of numbers that belong in each set.

Don't forget your examples!

Prisms in the Real World

Part 1: Identify 1 example of a rectangular prism in the real world. Using a ruler, measure and record the shape's dimensions in the space provided below. Finally, use those dimensions to calculate the volume of the prism. Be sure to show all of your work.

Part 2: Identify 1 example of a triangular prism in the real world. Using a ruler, measure and record the shape's dimensions in the space provided below. Finally, use those dimensions to calculate the volume of the prism. Be sure to show all of your work.

Rectangular Prism	Triangular Prism
Length of the Base: _____	Length of the Base: _____
Width of the Base: _____	Height of the Base: _____
Height of the Prism: _____	Height of the Prism: _____
Area of the Base: _____	Area of the Base: _____
Total Volume: _____	Total Volume: _____
Be sure to show all of your work!	Be sure to show all of your work!

Solving Two-Step Equations

Solve each equation. Show each step.

1) $4.4 + 5.5x = 72.05$

2) $4.2 - 1.4m = 8.68$

3) $-\frac{2}{3}m - 1\frac{5}{6} = -\frac{17}{18}$

4) $-\frac{7}{4}p - \frac{7}{5} = -5\frac{3}{5}$

5) $5n + 8 = -57$

6) $-3 + \frac{n}{10} = -2$

7) $5v - 1 = 79$

8) $3x + 5 = 38$

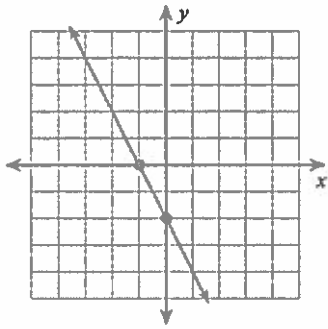
9) $-7 + \frac{v}{9} = -9$

10) $-2 - 2v = 8$

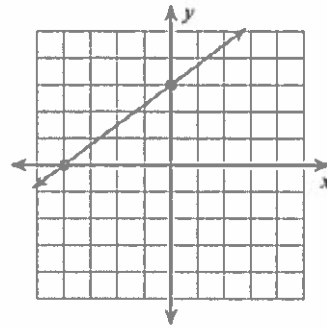
Finding Slope & Y-Intercept

Calculate the slope and identify the y-intercept of each line.

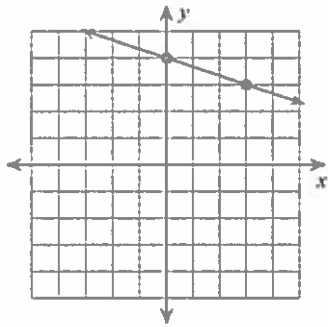
1)



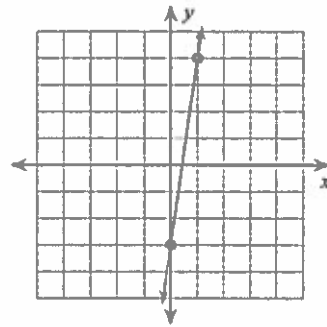
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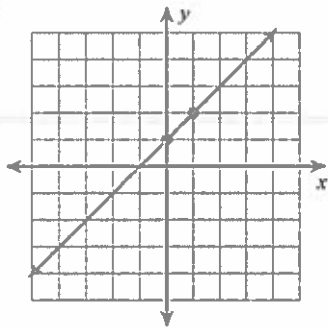
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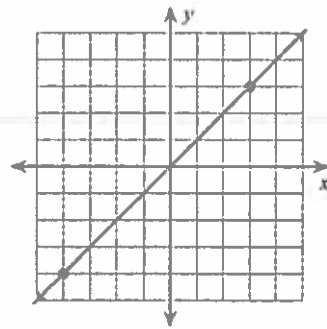
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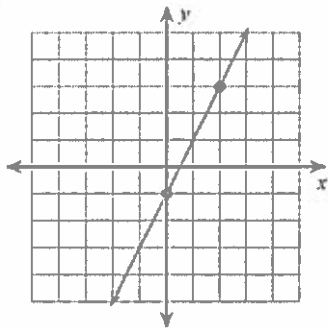
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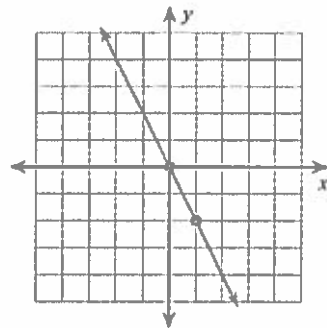
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7)



8)



Solving Proportions

Solve each proportion.

1) $\frac{10}{6} = \frac{r}{7}$

2) $\frac{9}{k} = \frac{2}{9}$

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

4) $\frac{x}{3.1} = \frac{9.4}{7.7}$

5) $\frac{r}{1.187} = \frac{1.4}{1.8}$

6) $\frac{8}{2} = \frac{n}{1.5}$

Answer each question and round your answer to the nearest whole number.

7) If a 4 ft tall baby elephant casts a 2 ft long shadow, then how tall is a statue that casts a 9 ft shadow?

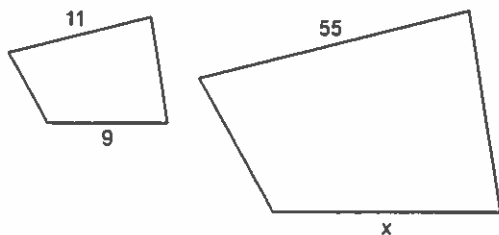
8) A car that is 4 ft tall casts a shadow that is 2 ft long. Find the height of a woman that casts a 3 ft shadow.

9) If a 2 ft tall globe casts a 1 ft long shadow, then how tall is a baby giraffe that casts a 4 ft shadow?

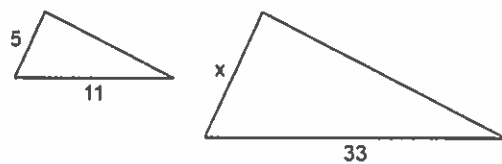
10) If a 7 ft tall man casts a 8 ft long shadow, then how tall is a statue that casts a 16 ft shadow?

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

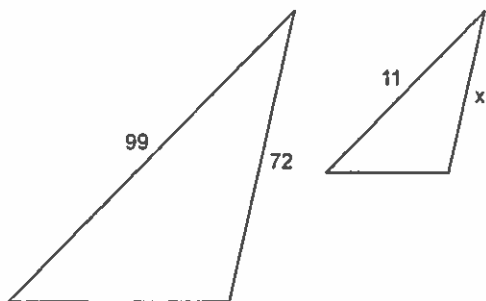
11)



12)



13)



14)

