



Palestine Junior High
Incoming 8th Grade Pre-AP 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 pre-ap 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 – Slope & Equations Review
- Part 4 – Geometry Review
- Part 5 – Statistics and Interest 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. Samantha Templin at stemplin@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

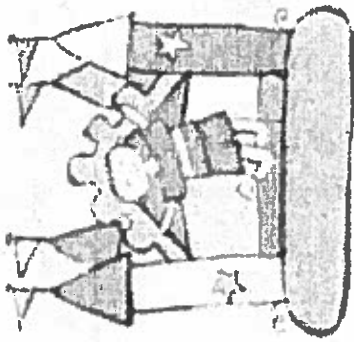
<http://math.com/>

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.

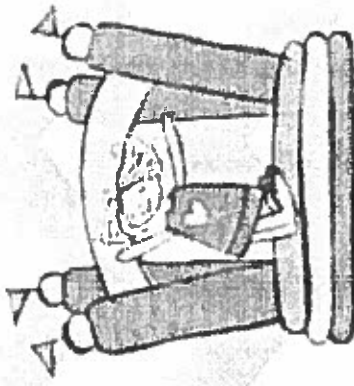
Math Drills

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

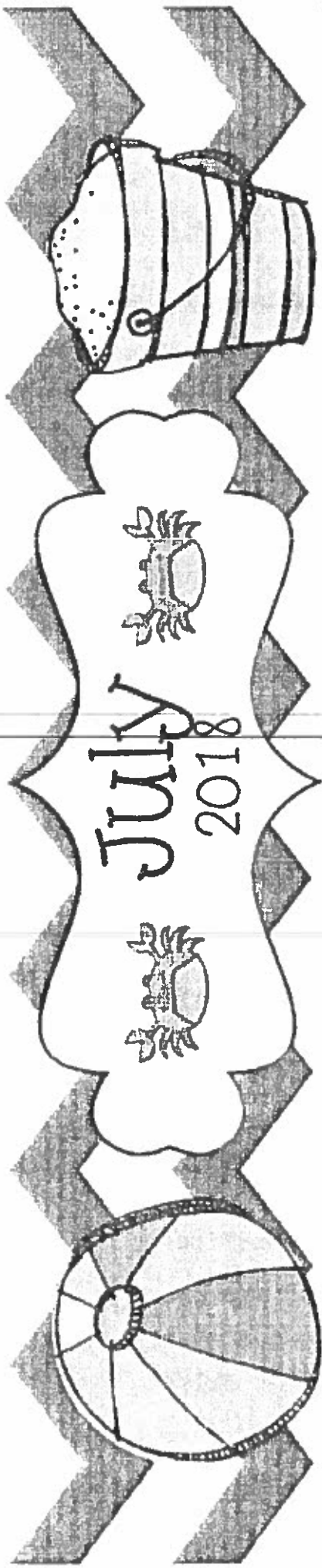
An excellent source for reinforcement and drills on various topics of middle school math; includes number sense and pre-algebra drills (Includes seasonal math, flash cards and graphing paper).



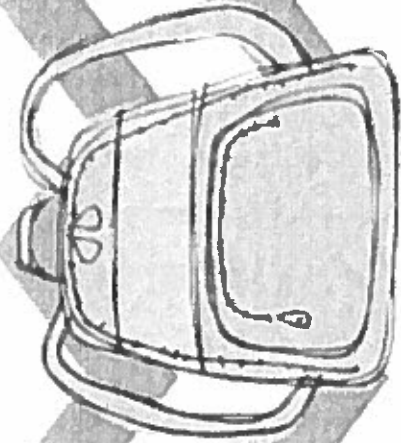
June 2018



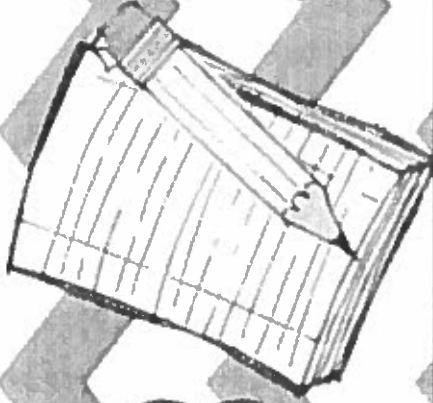
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3 Begin "Create a Number System"	4	5	6	7	8	9
10	11	12	13	14	15	16 Complete "Create a Number System"
17 Begin "Prisms in the Real World"	18	19	20	21	22	23
24	25	26	27	28	29	30 Complete "Prisms in the Real World"



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



August 2018



Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6	7	8	9	10	11 Complete "Stats & Interest 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.

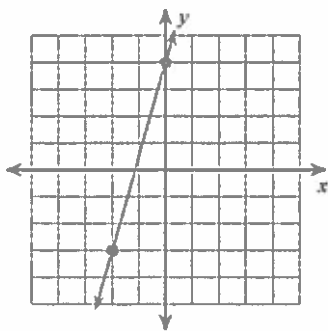
Part 2: In each section, include 10 examples of numbers that belong in each set.

Don't forget your examples!

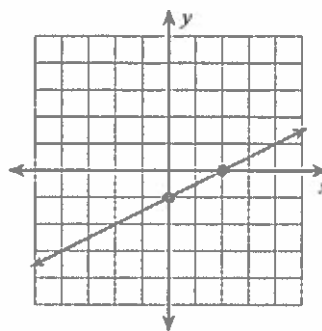
Slope & Equations Review

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

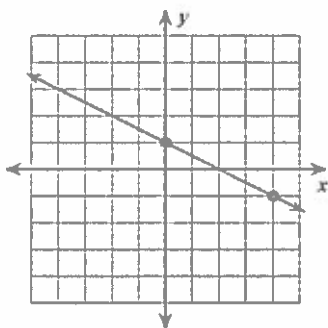
1)



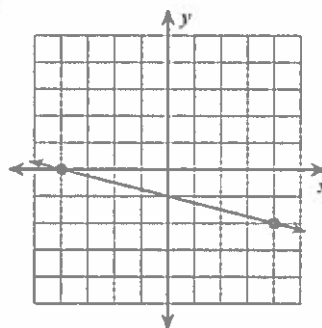
2)



3)



4)



Solve each equation.

5) $7 + \frac{m}{3} = 9$

6) $\frac{m}{4} - 8 = -9$

7) $9v - 2 = -14\frac{6}{7}$

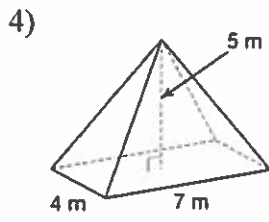
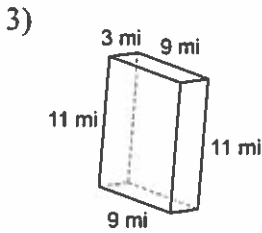
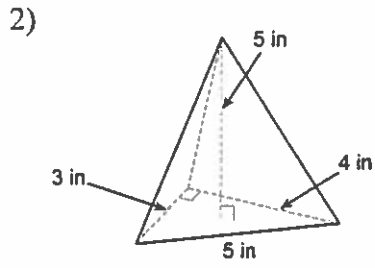
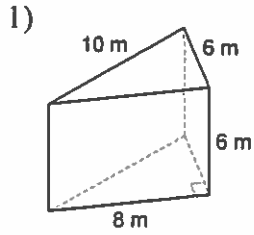
8) $5\frac{1}{2}m - \frac{5}{4} = 6\frac{1}{12}$

9) $3.2 - 9.1a = 53.341$

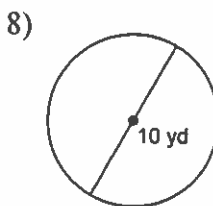
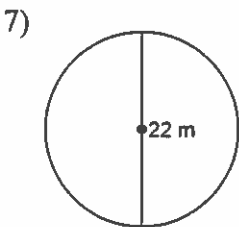
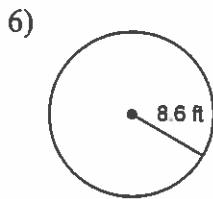
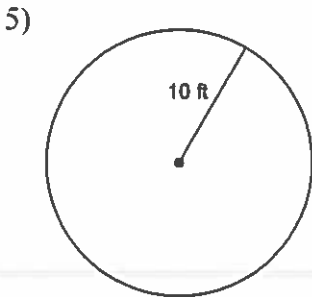
10) $2.31n - 3.3 = 17.721$

Geometry Review

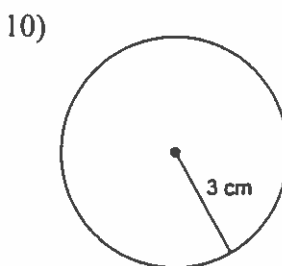
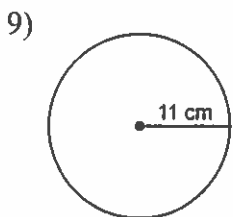
Find the volume of each figure. Round to the nearest tenth.



Find the area of each circle. Round your answer to the nearest tenth.



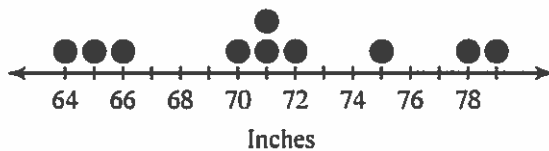
Find the circumference of each circle. Round your answer to the nearest tenth.



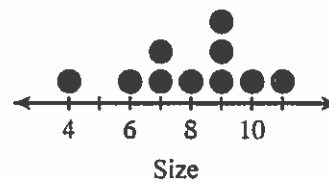
Stats and Interest Review

Find the mode, median, mean, and range for each data set.

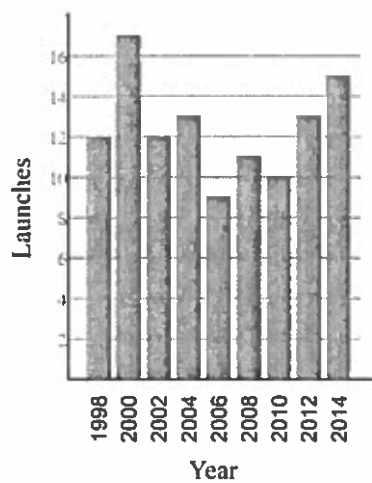
1) Adult Male Heights



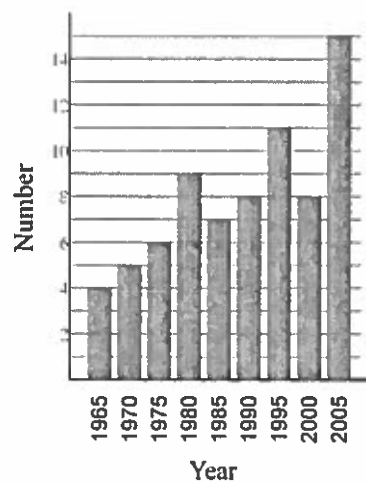
2) Shoe Size



3) European Spacecraft Launches



4) Atlantic Hurricanes



Find the final selling price of each item.

5) Original price of concert tickets: \$100.00
Discount: 30%

6) Original price of a radio: \$59.50
Discount: 38%

7) Original price of a radio: \$25.50
Discount: 55%

8) Original price of a shirt: \$31.99
Discount: 50%

Find the simple interest amount of each problem.

9) \$6,400 at 2% for 2 years

10) \$1,190 at 7% for 4 years

Find the total amount of the investment after the time given using compound interest.

11) \$1,180 at 10% compounded annually for 2 years

12) \$430 at 13% compounded annually for 2 years