

The Ultimate
FREEBIE

BUNDLE

For math in the
upper grades

Middle School Math Man



The Ultimate FREEBIE Bundle

Thank you for downloading the Ultimate Freebie Bundle! Following are the products included in the bundle.

Contents:

1. Math Task Cards (Decimals and Exponents)**
2. Math Enrichment Task Cards (Decimals and Exponents)**
3. Challenge of the Week Problems
4. Connect Four: Multiplying Decimals**
5. Equation Memory: Addition Equations**
6. Math Curse Challenge
7. Scavenger Hunt (Number System)**
8. Blueprint Project
9. Percent Scramble
10. Pi Day Challenge
11. Equivalent Fraction Memory

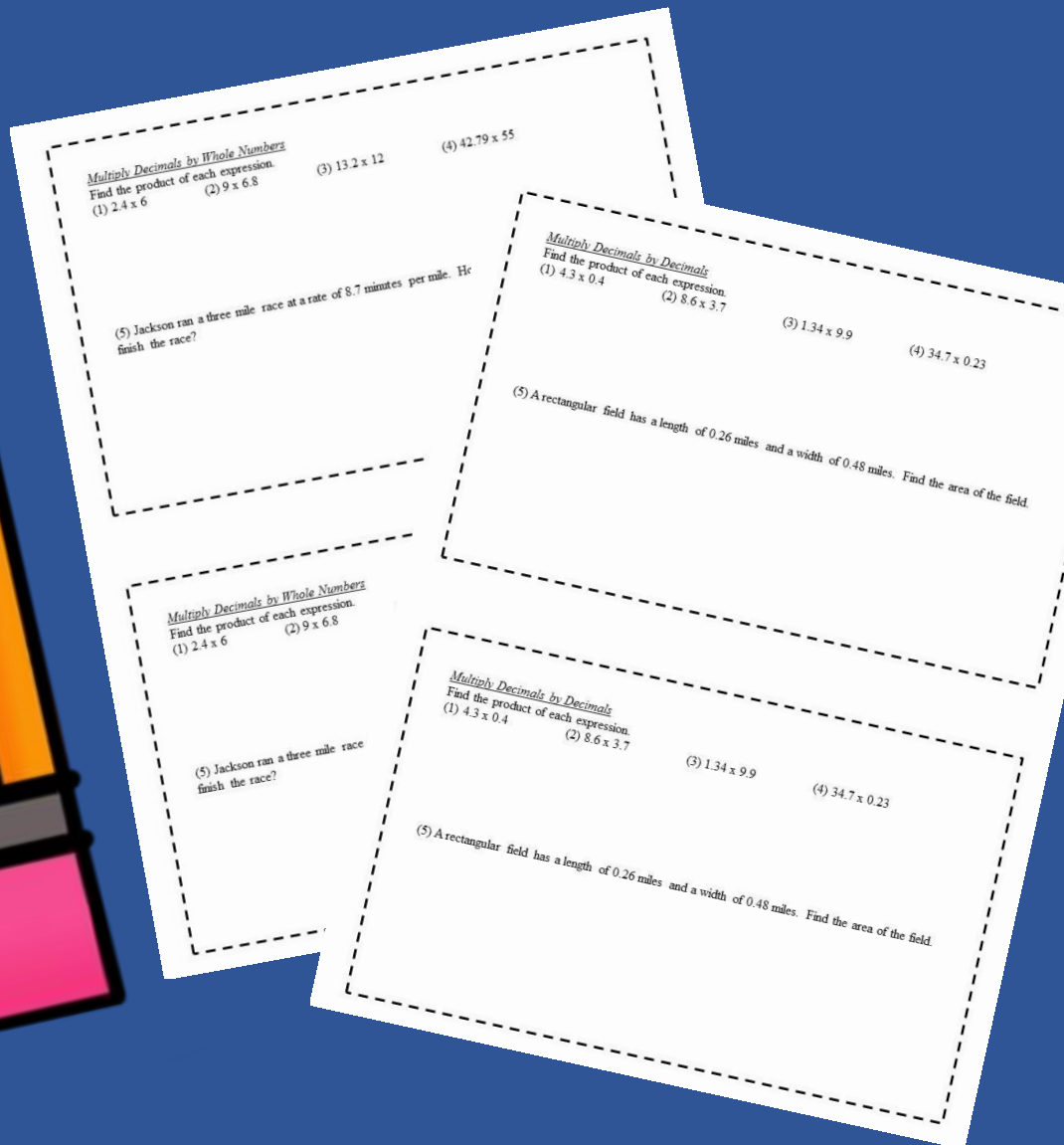
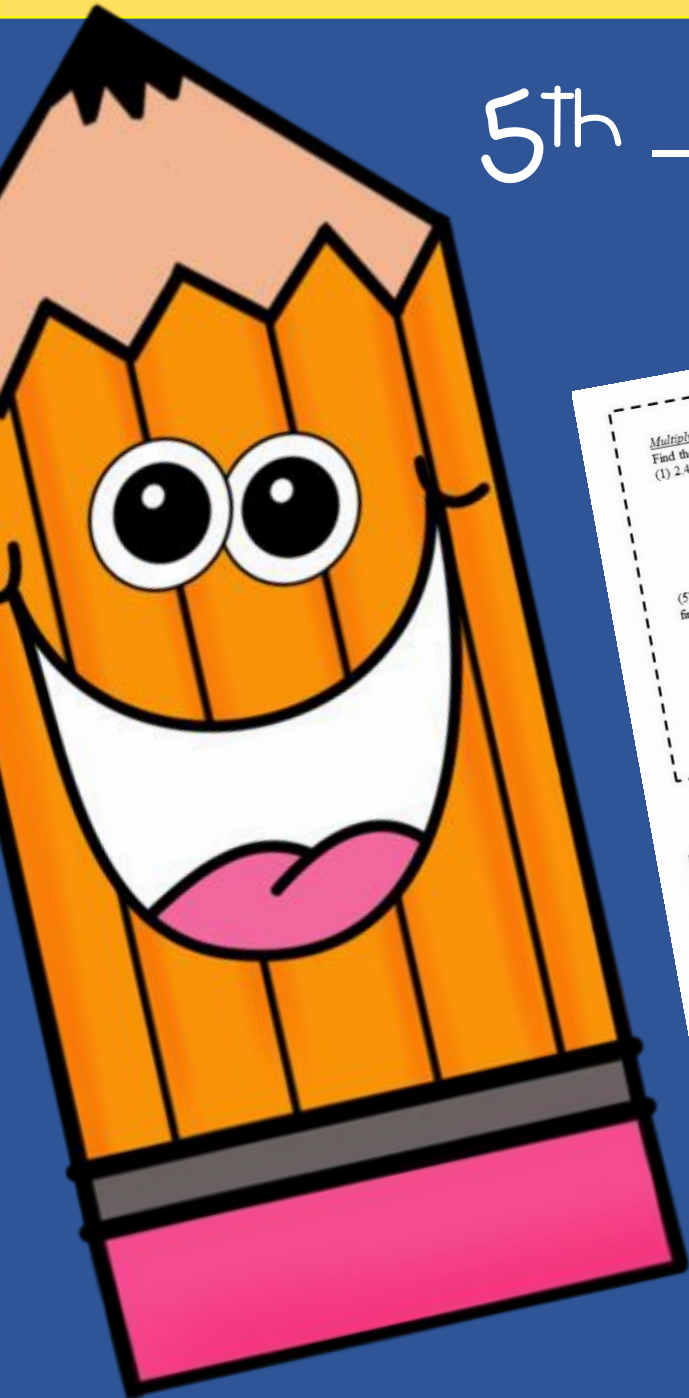
**Denotes products in which other units/topics are available for purchase in my TpT Store!

Note: Due to formatting reasons, there are a few other freebies in my store that are not included in this bundle, including Equivalent Fraction Memory!

Decimals and Exponents

TASK CARDS

5th – 6th grade math



Created by Alex O'Connor

Multiply Decimals by Whole Numbers

Find the product of each expression.

(1) 2.4×6

(2) 9×6.8

(3) 13.2×12

(4) 42.79×55

(5) Jackson ran a three mile race at a rate of 8.7 minutes per mile. How long did it take Jackson to finish the race?

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(1) 2.4×6

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Multiply Decimals by Decimals

Find the product of each expression.

(1) 4.3×0.4

(2) 8.6×3.7

(3) 1.34×9.9

(4) 34.7×0.23

(5) A rectangular field has a length of 0.26 miles and a width of 0.48 miles. Find the area of the field.

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Estimate Quotients

Estimate each quotient.

(1) $9.4 \div 3.2$

(2) $27.4 \div 6.8$

(3) $74.3 \div 9.4$

(4) $322.1 \div 83$

(5) In a relay race, a team of six runners had a total time of 67.3 seconds. Assuming that each student ran at about the same speed, estimate how many seconds each student was running for.

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Estimate each quotient.

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Divide Decimals by Whole Numbers

Find each quotient.

(1) $27.6 \div 3$

(2) $109.8 \div 9$

(3) $79.2 \div 12$

(4) A car travels 545.6 miles in 8 hours. How many miles per hour is the car traveling?

Divide Decimals by Whole Numbers

Find each quotient.

(1) $27.6 \div 3$

(2) $109.8 \div 9$

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Divide Decimals by Decimals

Find each quotient.

(1) $2.52 \div 1.2$

(2) $53.76 \div 5.6$

(3) $41.89 \div 7.1$

(4) Colten lives 3.1 miles away from school. Erin lives 1.2 miles away from school. How many times farther does away from school does Colten live than Erin? Round your answer to the tenths place.

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Exponents

Evaluate each expression.

(1) 3^2

(2) 3^4

(3) 7^3

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Multiply Decimals by Whole Numbers (ANSWER KEY)

Find the product of each expression.

(1) 2.4×6

14.4

(2) 9×6.8

61.2

(3) 13.2×12

158.4

(4) 42.79×55

$2,353.45$

(5) Jackson ran a three mile race at a rate of 8.7 minutes per mile. How long did it take Jackson to finish the race?

$$8.7 \times 3 = 26.1 \text{ minutes}$$

Multiply Decimals by Whole Numbers (ANSWER KEY)

Find the product of each expression.

(1) 2.4×6

14.4

(2) 9×6.8

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1.72

31.82

13.266

7.981

(5) A rectangular field has a length of 0.26 miles and a width of 0.48 miles. Find the area of the field.

$$0.26 \times 0.48 = 0.1248 \text{ square miles}$$

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Find the product of each expression.

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$9 \div 3 = 3$

$28 \div 7 = 4$

$72 \div 9 = 8$

$320 \div 80 = 4$

(5) In a relay race, a team of six runners had a total time of 67.3 seconds. Assuming that each student ran at about the same speed, estimate how many seconds each student was running for.

$66 \div 6 = 11 \text{ seconds}$

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6.6

(4) A car travels 545.6 miles in 8 hours. How many miles per hour is the car traveling?

$$545.6 \div 8 = 68.2 \text{ mph}$$

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5.9

(4) Colten lives 3.1 miles away from school. Erin lives 1.2 miles away from school. How many times farther does away from school does Colten live than Erin? Round your answer to the tenths place.

$3.1 \div 1.2 = 2.6 \text{ times farther}$

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Exponents (ANSWER KEY)

Evaluate each expression.

(1) 3^2

9

(2) 3^4

81

(3) 7^3

343

(4) 5.2^2

27.04

(5) Which is greater, 2^3 or 3^2 ?

$$2^3 = 8$$

$$3^2 = 9$$

3^2 is greater than 2^3 .

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Thank you for downloading my Math Task Cards (Decimals and Exponents)!

If you found these task cards useful, be sure to also check out my Math Enrichment Problems in my TpT store! Visit my blog at www.middleschoolmathman.blogspot.com for more teaching ideas and resources.

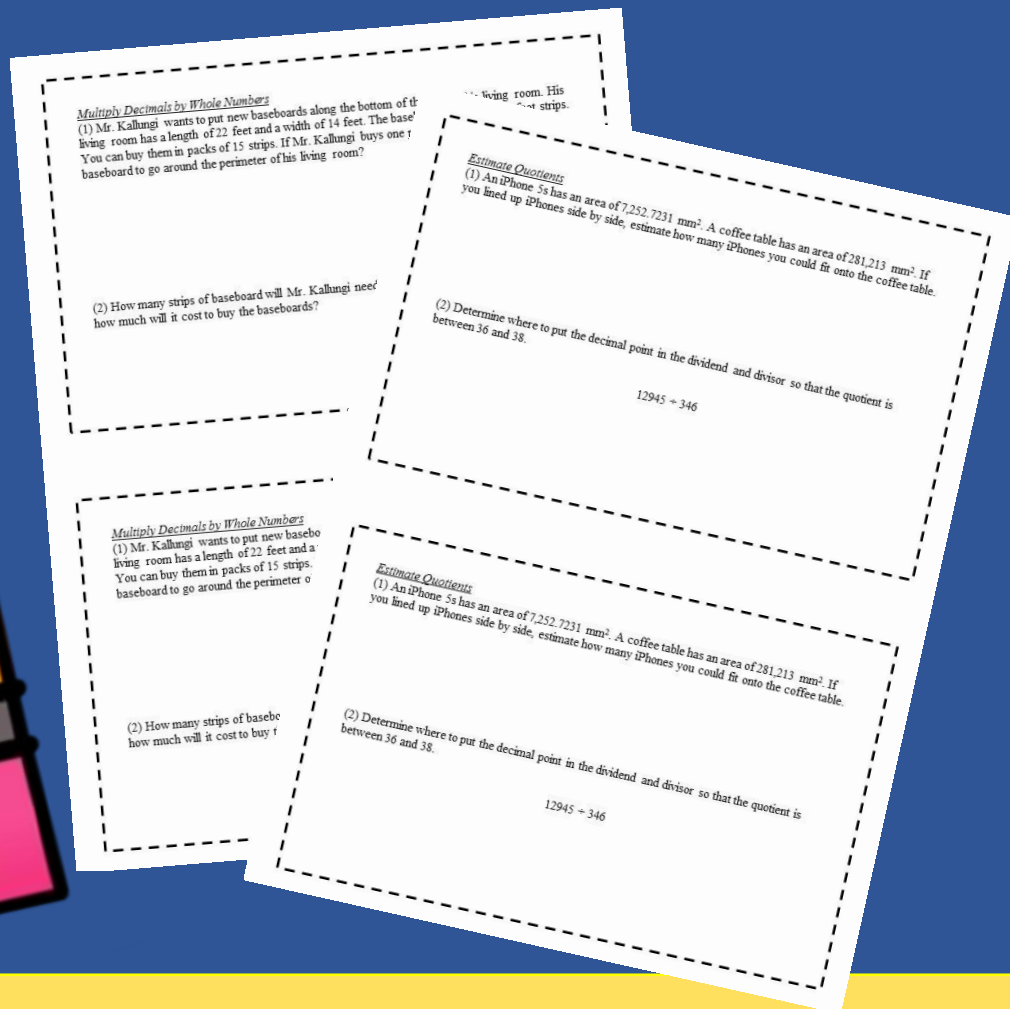
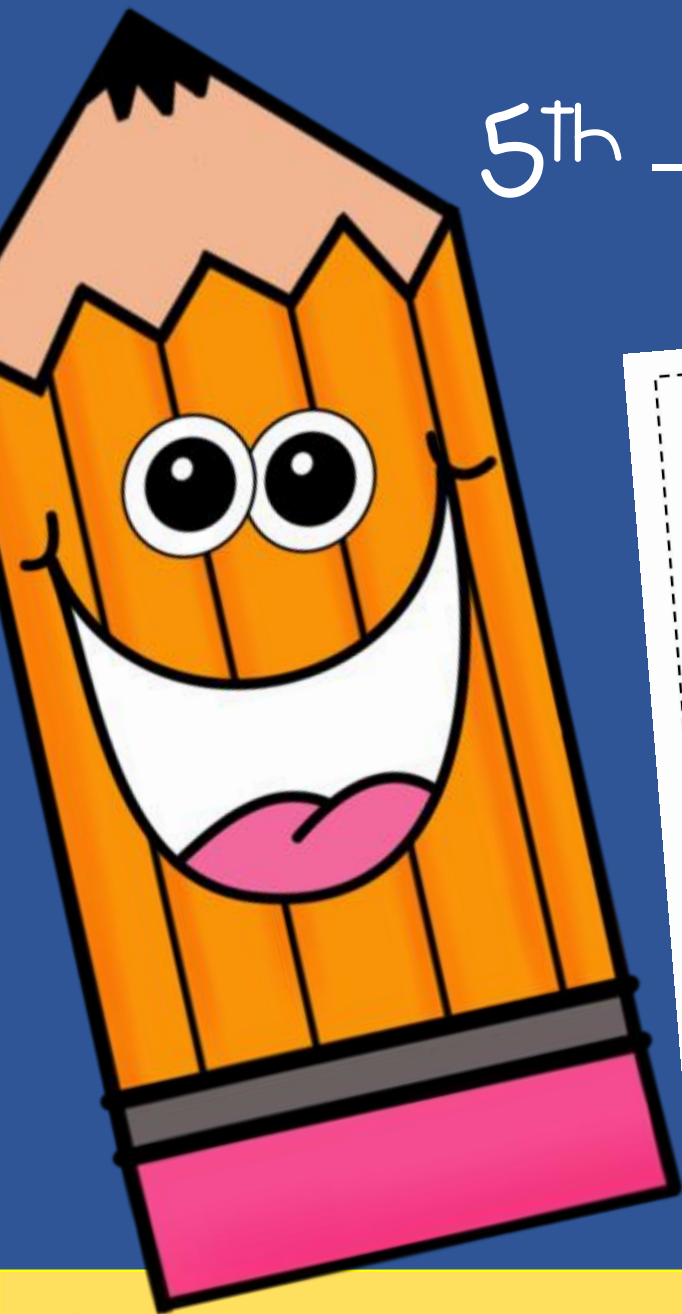
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Math Enrichment

TASK CARDS

5th – 6th grade math



Decimals and Exponents

Created by Alex O'Connor

Multiply Decimals by Whole Numbers

(1) Mr. Kallungi wants to put new baseboards along the bottom of the wall in his living room. His living room has a length of 22 feet and a width of 14 feet. The baseboards come in 4.62 foot strips. You can buy them in packs of 15 strips. If Mr. Kallungi buys one pack, will he have enough baseboard to go around the perimeter of his living room?

(2) How many strips of baseboard will Mr. Kallungi need to use in all? If each strip costs \$3.75, how much will it cost to buy the baseboards?

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Multiply Decimals by Decimals

(1) The iPhone 5s has a base of 58.57 mm and a height of 123.83 mm. Find the area of the iPhone 5s. Round your answer to the hundredths place.

(2) The screen on the iPhone 5s has a base of 51.7 mm and a height of 90.39 mm. Find the area of the iPhone's screen. Round your answer to the hundredths place.

(3) Find the area on the front of the iPhone that isn't part of the screen.

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Estimate Quotients

(1) An iPhone 5s has an area of $7,252.7231 \text{ mm}^2$. A coffee table has an area of $281,213 \text{ mm}^2$. If you lined up iPhones side by side, estimate how many iPhones you could fit onto the coffee table.

(2) Determine where to put the decimal point in the dividend and divisor so that the quotient is between 36 and 38.

$$12945 \div 346$$

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Divide Decimals by Whole Numbers

(1) Clayton Kershaw, a baseball player for the Los Angeles Dodgers, makes \$30.15 million per year. There are 162 games in a major league baseball season. Carmello Anthony, a basketball player for the Knicks, makes \$24.81 million per year. There are 82 games in a NBA season. Which player is making more money per game played? Round any answers to the hundredths place.

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Divide Decimals by Decimals

(1) On average, the Earth is 92.96 million miles from the sun. Jupiter is 483.8 million miles from the sun. How many times farther from the sun is Jupiter than Earth? Round your answer to the hundredths place.

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(1) Which is greater, 5^6 or 6^5 ?

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Multiply Decimals by Whole Numbers (ANSWER KEY)

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$$\text{Perimeter of room} = 22 + 22 + 14 + 14 = 72 \text{ feet}$$

Total length of 15 baseboard strips (1 pack)

$$\begin{array}{r} 4.62 \\ \times 15 \\ \hline 69.3 \text{ feet} \end{array}$$

No, one pack of baseboards will not be enough to cover the perimeter of his living room.

(2) How many strips of baseboard will Mr. Kallungi need to use in all? If each strip costs \$3.75, how much will it cost to buy the baseboards?

Mr. Kallungi will need 16 strips of baseboard, which will cost:

$$\begin{array}{r} 3.75 \\ \times 16 \\ \hline 60 \text{ dollars} \end{array}$$

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(1) The iPhone 5s has a base of 58.57 mm and a height of 123.83 mm. Find the area of the iPhone 5s. Round your answer to the hundredths place.

$$\begin{array}{r} 123.83 \\ \times 58.57 \\ \hline 7,252.7231 \end{array}$$

$$7,252.72 \text{ mm}^2$$

(2) The screen on the iPhone 5s has a base of 51.7 mm and a height of 90.39 mm. Find the area of the iPhone's screen. Round your answer to the hundredths place.

$$\begin{array}{r} 90.39 \\ \times 51.7 \\ \hline 4,673.163 \end{array}$$

$$4,673.16 \text{ mm}^2$$

(3) Find the area on the front of the iPhone that isn't part of the screen.

$$7,252.72 - 4,673.16 = 2,579.56 \text{ mm}^2$$

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Estimate Quotients (ANSWER KEY)

(1) An iPhone 5s has an area of $7,252.7231 \text{ mm}^2$. A coffee table has an area of $281,213 \text{ mm}^2$. If you lined up iPhones side by side, estimate how many iPhones you could fit onto the coffee table.

$$\begin{aligned} \text{Estimate } 281,213 \div 7,252.7231 \\ 280,000 \div 7,000 = 40 \end{aligned}$$

About 40 iPhones would be able to fit on the coffee table.

(2) Determine where to put the decimal point in the dividend and divisor so that the quotient is between 36 and 38.

$$12945 \div 346$$

Possible answers:

$$12,945.0 \div 346.0$$

$$1,294.5 \div 34.6$$

$$129.45 \div 3.46$$

$$12.945 \div 0.346$$

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(1) Clayton Kershaw, a baseball player for the Los Angeles Dodgers, makes \$30.15 million per year. There are 162 games in a major league baseball season. Carmello Anthony, a basketball player for the Knicks, makes \$24.81 million per year. There are 82 games in a NBA season. Which player is making more money per game played? Round any answers to the hundredths place.

Clayton Kershaw dollars per game

$$30.15 \div 162 = 0.19 \text{ million dollars per game}$$

Carmello Anthony dollars per game

$$24.81 \div 82 = 0.30 \text{ million dollars per game}$$

Carmello Anthony makes more money per game than Clayton Kershaw.

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(1) On average, the Earth is 92.96 million miles from the sun. Jupiter is 483.8 million miles from the sun. How many times farther from the sun is Jupiter than Earth? Round your answer to the hundredths place.

$$483.8 \div 92.96 = 5.20$$

Jupiter is 5.20 times farther from the sun than Earth.

(2) If you are in a spaceship that could travel from the Earth to the sun at a speed of 1.6 million miles per hour, how long would it take you to get to the sun?

$$92.96 \div 1.6 = 58.1$$

It would take you 58.1 hours to reach the sun.

Divide Decimals by Decimals (ANSWER KEY)

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Jupiter is 5.20 times farther from the sun than Earth.

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$$92.96 \div 1.6 = 58.1$$

It would take you 58.1 hours to reach the sun.

Exponents (ANSWER KEY)

(1) Which is greater, 5^6 or 6^5 ?

$$5^6 = 5 \times 5 \times 5 \times 5 \times 5 \times 5 = 15,625$$

$$6^5 = 6 \times 6 \times 6 \times 6 \times 6 = 7,776$$

5^6 is greater than 6^5 .

(2) When flipping a coin 10 times, the odds of flipping all heads is 1 in 2^{10} . Write this probability without using an exponent.

$$2^{10} = 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 = 1,024$$

The probability of flipping heads ten times in a row is 1 in 1,024.

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Thank you for downloading my
Math Enrichment Problems
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Visit my blog at
www.middleschoolmathman.blogspot.com
for more teaching ideas and resources.

Cover slide clipart thanks to:

<http://www.teacherspayteachers.com/Store/Krista-Wallden>

The Number
System

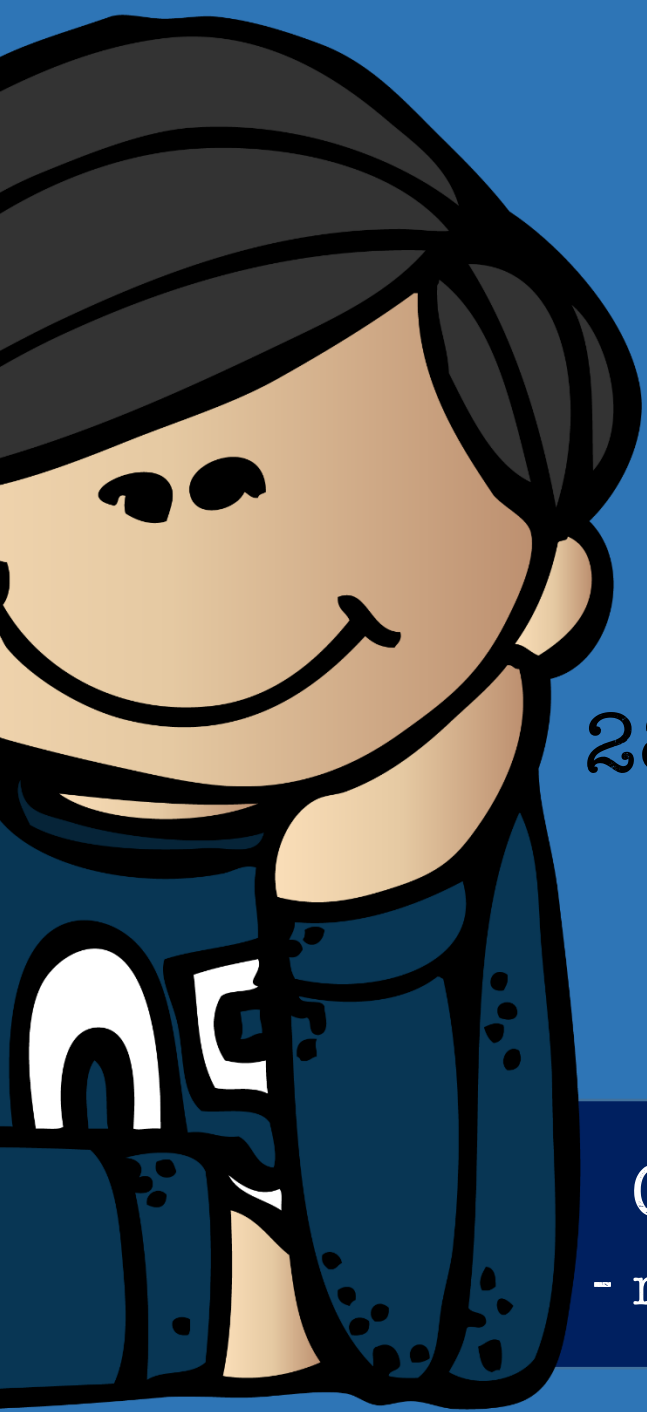
Ratios and
Proportional
Relationships

Expressions
and
Equations

Geometry

Statistics
and
Probability

Challenge *of the* Week



28 Challenging Problems
for 6th Grade Math

Created by Alex O'Connor
- middleschoolmathman.blogspot.com -

Challenge of the Week!

Teacher Information

A few years ago, I began a Challenge of the Week routine in my classroom. The goal was to give my students who finish work early something to do. I started putting up a new challenging problem every Monday morning. Students have until the end of the day Thursday to try the problem and turn it in. On Friday, we go over the answer and whoever got the correct answer gets a small prize! Check out the link below for more details about how I use the Challenge of the Week in my classroom!

http://middleschoolmathman.blogspot.com/p/blog-page_22.html

Useful Tips:

- Have one spot on your board where you always put the challenge.
- Have a designated spot for students to turn in their challenge of the week answers.
- Try to have the challenge problem relate to the topic you are currently teaching at the beginning of that week.

Challenge of the Week!

Problems

The Number System

1. Mr. O'Connor had \$90 to spend at a football game. He spent $\frac{31}{45}$ on his ticket. Then, he spent $\frac{3}{7}$ of his remaining money at the concession stand. While walking back to his seat, he saw a new hat on sale for \$18. Did Mr. O'Connor have enough money left to buy the hat? Show all of your work.
2. Find two mixed numbers or fractions that have a quotient of $3\frac{1}{5}$.

Ratios and Proportional Relationships

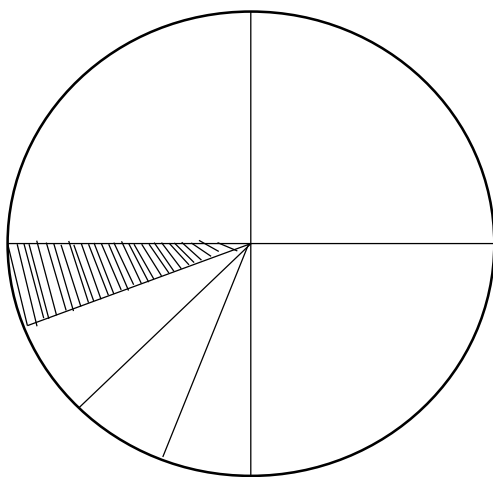
1. Suppose 48 out of every 120 people like baseball. Of the people who like baseball, $\frac{3}{5}$ play baseball. If you ask 500 people, how many would you expect to play baseball?
2. Complete each blank to find an expression that is equal to 16%.
(a) ____ for every 100 (b) ____ for every 25
(c) 1 for every ____ (d) 0.5 for every ____

Challenge of the Week!

Problems

Ratios and Proportional Relationships (continued)

3. What percent of the circle is shaded?



4. The speed of a dog is 150% the speed of a squirrel. The speed of a cheetah is 310% the speed of the dog. If the squirrel can run 12 mph, how fast is the cheetah? Round your answer to the tenths place and show all work.

5. In 2012, the U.S. ate 760,000,000 pounds of turkey over Thanksgiving. There were 312,800,000 people living in the U.S. How much turkey did each person eat on average? You may use a calculator to help with long division, but show all other work and round to the hundredths place.

Challenge of the Week!

Problems

Expressions and Equations

1. Write a numerical expression with at least four different numbers that uses parentheses, exponents, division, multiplication, subtraction, and addition and is equal to 10.

2. Solve the expression if $y = 8$.

$$((y^3 - 21^2) \times 2) + (1^2 + 2^2 + 3^2)^2$$

3. Write a real world problem that could be solve using the equation $7x + 6 = 55$.

4. Solve the equation. Show all work.

$$x - \frac{13}{15} = 4.71$$

5. Solve the equation. Show all work.

$$8\frac{1}{3}y + \frac{4}{5} = \frac{9}{10}$$

Challenge of the Week!

Problems

Expressions and Equations (continued)

6. The cost for bowling and bowling shoes is shown, based on the number of games you bowl. What is the rule to find the cost of x games?

Games (x)	Cost
2	8
3	11
4	14
5	17

7. A car wash is charging \$3.50 for each car it washes.

(a) Write an equation to show y , the total dollars earned, for washing c cars.

(b) Make a function table to show the money charged for 1, 2, 3, and 4 cars.

(c) Graph the function.

(d) Is the graph linear?

8. Solve the inequality and graph the solution on a number line.

$$2(x - 6) \geq 3$$

Challenge of the Week!

Problems

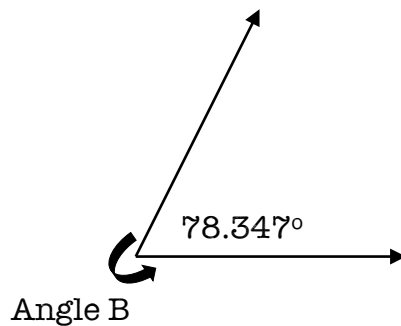
Expressions and Equations (continued)

9. Solve the inequality and graph the solution on a number line.

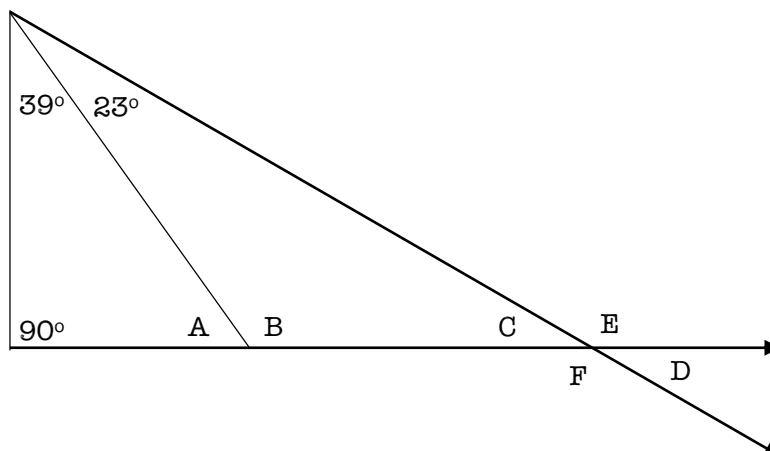
$$\frac{2}{5}y + \frac{1}{3} \leq \frac{5}{6}$$

Geometry

1. Without using a protractor, find the measure of angle B.



2. Without using a protractor, find the measure of each angle.



Challenge of the Week!

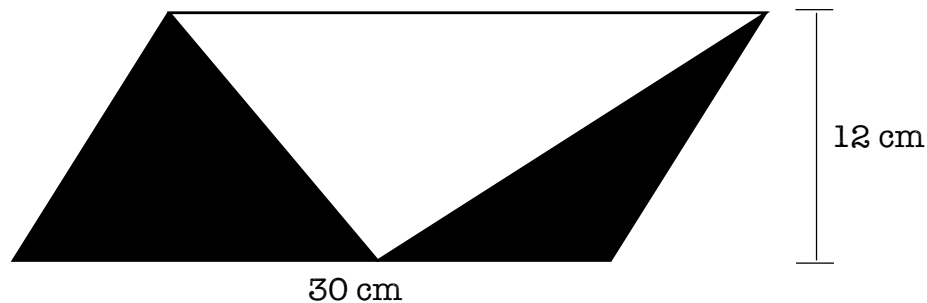
Problems

Geometry (continued)

3. The formula $(n - 2) \times 180$ can be used to find the sum of the interior angles of a polygon, where n is the number of sides of the polygon. Find the measure of one of the angles in a regular icosagon (20-sided polygon).

4. A triangle has three vertices located at $A(-1, 2)$, $B(-1, 5)$, and $C(-4, 2)$. List the ordered pairs of the triangle after it has been translated four units to the right, reflected over the x -axis, and then rotated 90° clockwise about the origin.

5. Find the area of the shaded region.

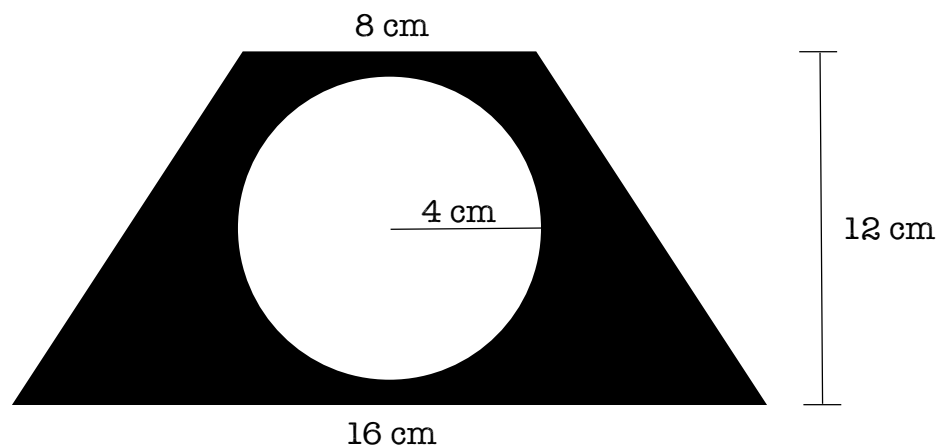


Challenge of the Week!

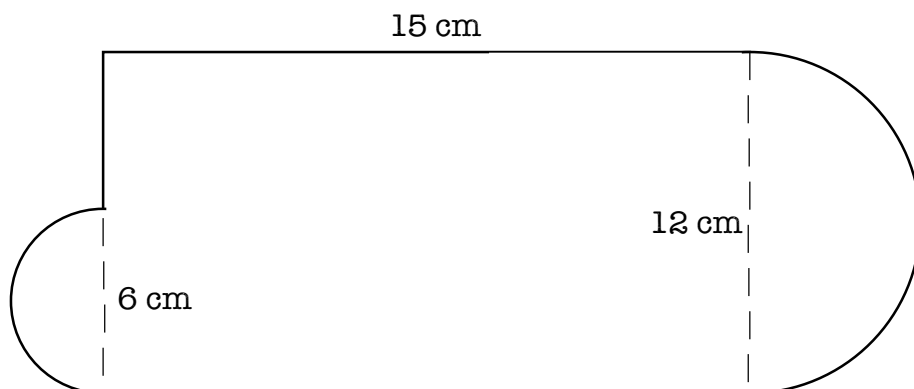
Problems

Geometry (continued)

6. Find the area of the shaded region. Use 3.14 for pi and round your final answer to the tenths place.



7. Find the area. Use 3.14 for pi and round your final answer to the tenths place.

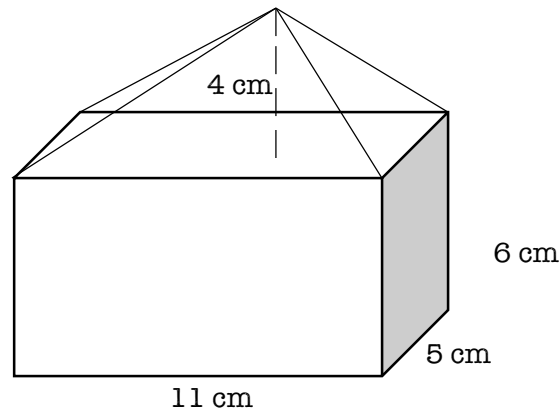


Challenge of the Week!

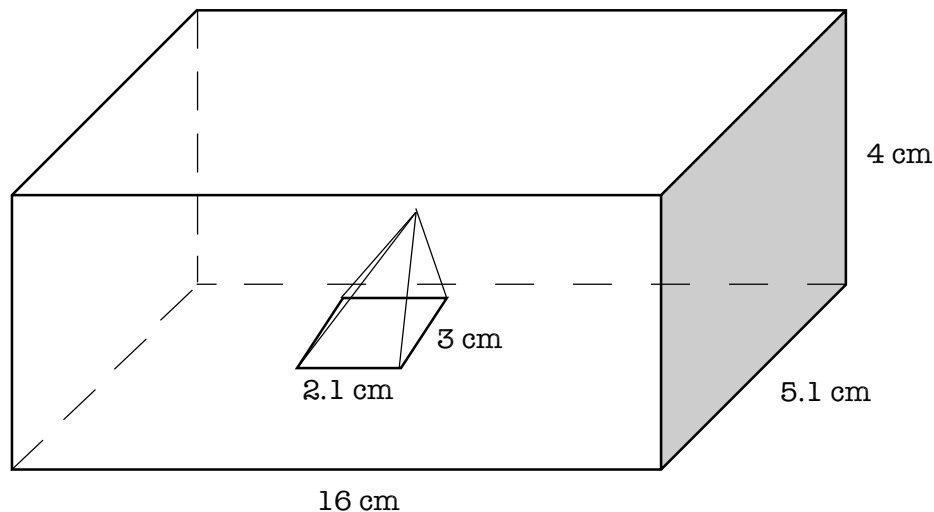
Problems

Geometry (continued)

8. Find the volume. Round to the tenths place.



9. Find the volume outside of the pyramid but inside the rectangular prism. The height of the pyramid is 4 cm. Round to the tenths place.



Challenge of the Week!

Problems

Statistics and Probability

1. The mean of six numbers is 6.8. Find two missing numbers that would make this true.

5.4 3.2 ? ? 8.9 12.4

2. Maddy has a bag of 36 marbles. The probability of picking green is 1 in 2, the probability of picking red is 1 in 3, and the probability of picking blue is 1 in 9. The only other color in the bag is black. Find the probability of Maddy picking a black marble.

3. Amy has a bag with 2 pink marbles and 3 purple marbles. She picks two marbles. How much greater is the probability of Amy picking two consecutive pink marbles if she replaces her first marble as opposed to her leaving the first marble she picks out of the bag?

Challenge of the Week!

Answer Key

The Number System

1. No he did not. The ticket costs \$62, leaving him with \$28. He spent \$12 at the concession stand, so he only had \$16 left.

2. Answers vary. Sample: $8/5 \div 1/2$

Ratios and Proportional Relationships

1. 120 people

2. (a) 16 (b) 4 (c) 6.25 (d) 3.125

3. 6.25%

4. 55.8 miles per hour

5. 2.43 pounds of turkey

Expressions and Equations

1. Answers vary. Sample: $5 \times (2 + 6) \div 2^3 - (-5)$

2. 338

Challenge of the Week!

Answer Key

Expressions and Equations (continued)

3. Answers vary. Sample: Kirsten earns \$7 per hour babysitting. She gets an additional \$6 for food. Write an equation to show that Kirsten earned \$55 for babysitting x hours.

4. $5\frac{173}{300}$ or 5.58

5. $\frac{3}{250}$ or 0.012

6. $3x + 2$

7. (a) $y = 3.50c$

(b)

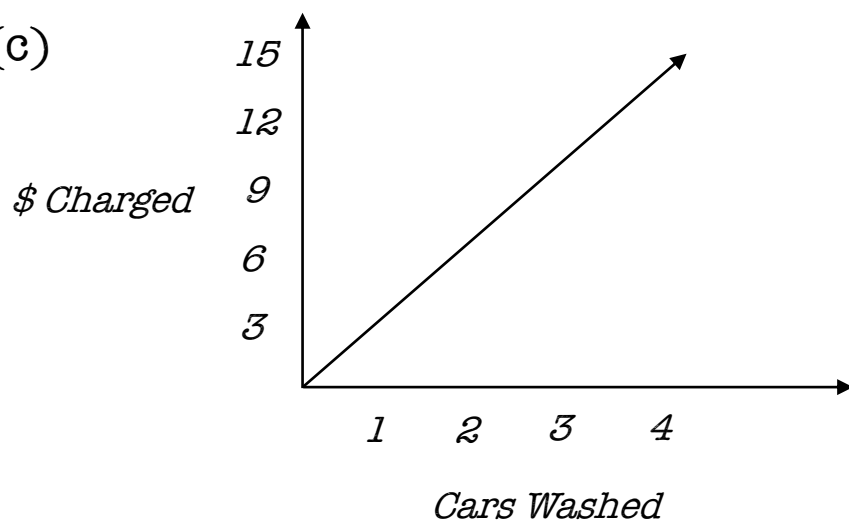
Cars	Money (\$)
1	3.50
2	7.00
3	10.50
4	14.00

Challenge of the Week!

Answer Key

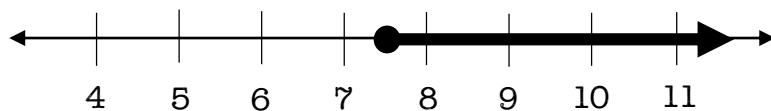
Expressions and Equations (continued)

7. (c)

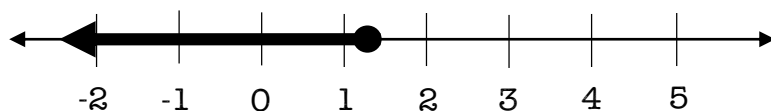


(d) Yes.

8. $x \geq 7.5$



9. $y \leq 1\frac{1}{4}$



Challenge of the Week!

Answer Key

Geometry

1. 281.653°

2. $A = 51^\circ$ $B = 129^\circ$ $C = 28^\circ$ $D = 28^\circ$ $E = 152^\circ$ $F = 152^\circ$

3. 162°

4. $A(-2, -3)$ $B(-5, -3)$ $C(-2, 0)$

5. 180 cm^2

6. 93.8 cm^2

7. 250.7 cm^2

8. 403.3 cm^3

9. 318 cm^3

Statistics and Probability

1. Answers vary (any 2 numbers that have a sum of 10.9).
Sample: 5.4 and 5.5

2. 1 out of 18

3. 6% or 0.06 or $\frac{3}{50}$

Thank you for downloading Math Challenge of the Week!

Visit my blog at
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for more teaching ideas and resources.

Cover slide clipart thanks to Melonheadz:



Connect Four!

Multiplying Decimals



Created by
Alex O'Connor

Connect Four!

Multiplying Decimals: Instructions

Rules of Play:

- Each player starts with their own Multiplying Decimals Game Board.
- The Multiplying Decimals Playing Cards go in a pile, face down, in the middle of the group.
- Someone from the group flips over the top card from the pile.
- Depending on how you would like to play, group members can solve the problem together or individually on the answer sheet.
- After solving the problem, students find the answer on their game board and cover it with a counter (or scrap of paper!).
- The first player to connect four in a row (vertically, horizontally, or diagonally) wins the game!

Tips for Teachers:

- This game can be played with 2-6 students.
- If you choose to let students work together to solve the problem, I would recommend having each individual student still show their work on the answer sheet.

Connect Four!

Multiplying Decimals: Game Board

44.1	54.56	19.24	10.23
29.6	11.04	20.16	30.16
66.43	308.8	9.9	370.8
19.2	57	394.8	272.8

Connect Four!

Multiplying Decimals: Game Board

19.24	394.8	272.8	370.8
20.16	308.8	54.56	44.1
11.04	30.16	19.2	57
66.43	10.23	9.9	29.6

Connect Four!

Multiplying Decimals: Game Board

11.04	66.43	19.2	308.8
370.8	29.6	57	394.8
10.23	44.1	272.8	30.16
9.9	20.16	54.56	19.24

Connect Four!

Multiplying Decimals: Game Board

9.9	272.8	30.16	19.24
394.8	19.2	370.8	54.56
11.04	57	10.23	29.6
66.43	308.8	44.1	20.16

Connect Four!

Multiplying Decimals: Game Board

54.56	44.1	20.16	19.2
19.24	66.43	10.23	57
394.8	29.6	30.16	308.8
272.8	9.9	11.04	370.8

Connect Four!

Multiplying Decimals: Game Board

19.24	20.16	9.9	10.23
19.2	394.8	370.8	30.16
54.56	272.8	29.6	44.1
11.04	66.43	57	308.8

Connect Four!

Multiplying Decimals: Playing Cards

4.9×9	6×9.5
2.6×7.4	9.2×1.2
88×3.1	4×77.2
4.5×2.2	9.3×1.1

Connect Four!

Multiplying Decimals: Playing Cards

3.7×8	3×6.4
5.8×5.2	6.2×8.8
56.4×7	9×41.2
4.8×4.2	7.3×9.1

Connect Four!

Multiplying Decimals: Answer Sheet

1.

2.

3.

4.

Connect Four!

Multiplying Decimals: Answer Sheet

5.

6.

7.

8.

Connect Four!

Multiplying Decimals: Answer Sheet

9.

10.

11.

12.

Connect Four!

Multiplying Decimals: Answer Sheet

13.

14.

15.

16.

Thank you for downloading Connect Four: Multiplying Decimals!

Visit my blog at
www.middleschoolmathman.blogspot.com
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Cover slide clipart thanks to Whimsy Clips!

www.whimsyclips.com

Equation Memory

Addition Equations

$$x + 9 = 21$$

$$x = 12$$



Created by Alex O'Connor

$x + 19 = 45$	$x + 18 = 46$	$x + 17 = 47$
$x + 16 = 48$	$x + 15 = 49$	$x + 14 = 50$
$x + 13 = 51$	$x + 12 = 52$	$x + 11 = 53$
$x + 10 = 54$	$x + 9 = 55$	$x + 8 = 56$

$$x = 26$$

$$x = 28$$

$$x = 30$$

$$x = 32$$

$$x = 34$$

$$x = 36$$

$$x = 38$$

$$x = 40$$

$$x = 42$$

$$x = 44$$

$$x = 46$$

$$x = 48$$

Thank you for downloading Equation Memory: Addition Equations!

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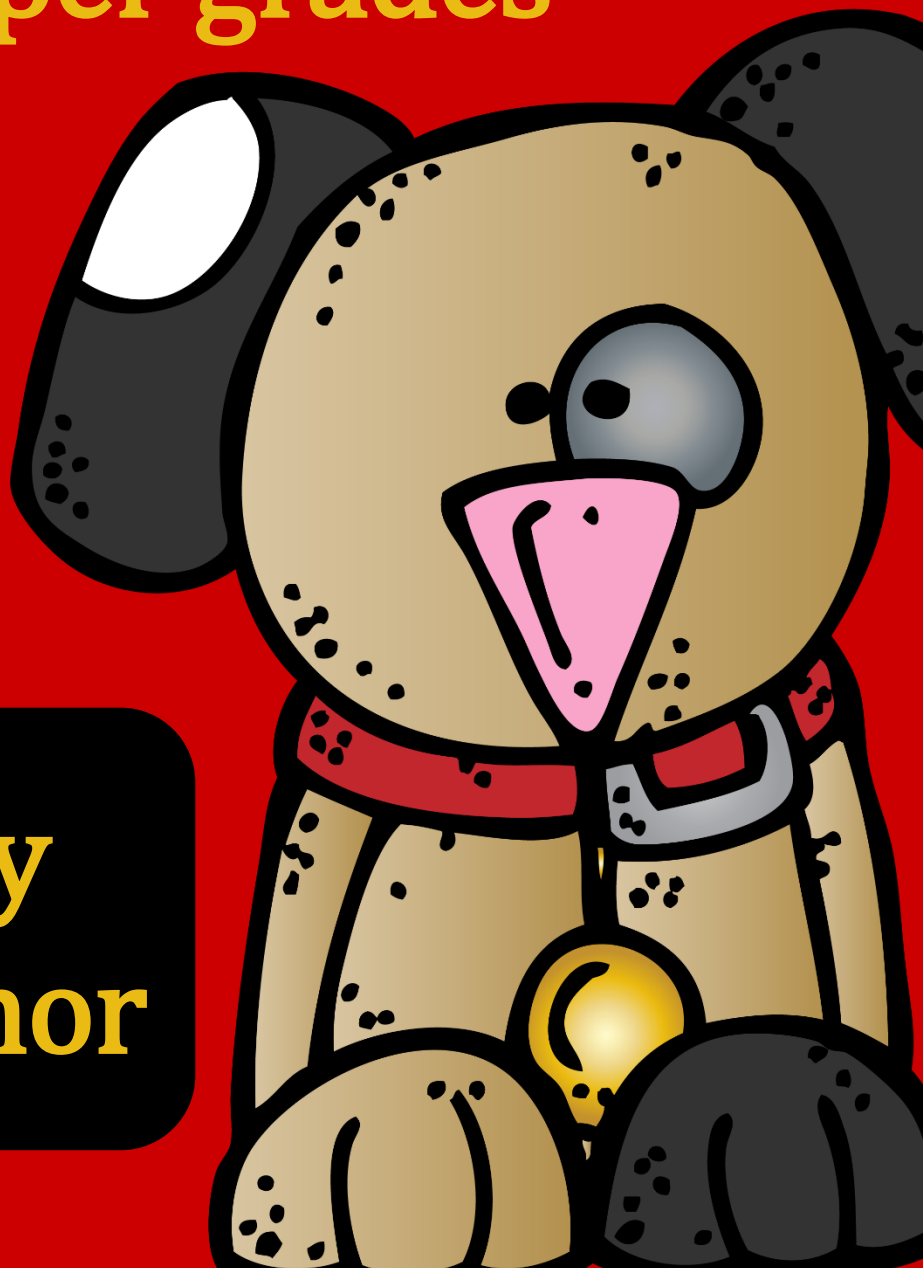
“Math Curse”

Challenge Questions

~for upper grades~

FREE!

Created by
Alex O'Connor



Math Curse Challenge!

(1) If the sum of my nieces and nephews equals 15, and their product equals 54, and I have more nephews than nieces, HOW MANY NEPHEWS AND HOW MANY NIECES IS THIS BOOK DEDICATED TO?

For #2-4 use the following quote. "I wake up at 7:15. It takes me 10 minutes to get dressed, 15 minutes to eat my breakfast, and 1 minute to brush my teeth."

(2) If my bus leaves at 8:00, will I make it on time?

(3) How many minutes in 1 hour?

(4) How many teeth in 1 mouth? (take a guess!)

For #5-7, assume there are 24 kids in the class.

(5) How many fingers are in the class?

(6) How many ears are in the class?

(7) How many tongues are in the class?

Math Curse Challenge!

For #8-9, use the following quote. "The Mississippi River is about 4,000 kilometers long. An M&M is about 1 centimeter long. There are 100 centimeters in a meter, and 1,000 meters in a kilometer."

(8) Estimate how many M&M's it would take to measure the length of the Mississippi River.

(9) Estimate how many M&M's you would eat if you had to measure the Mississippi River with M&M's.

(10) Find the next five numbers in the sequence below.

1, 1, 2, 3, 5, 8, 13, __, __, __, __, __

(11) How many minutes are in a year?

Math Curse Challenge!

Answer Key

(1) If the sum of my nieces and nephews equals 15, and their product equals 54, and I have more nephews than nieces, HOW MANY NEPHEWS AND HOW MANY NIECES IS THIS BOOK DEDICATED TO?

9 nephews and 6 nieces

For #2-4 use the following quote. "I wake up at 7:15. It takes me 10 minutes to get dressed, 15 minutes to eat my breakfast, and 1 minute to brush my teeth."

(2) If my bus leaves at 8:00, will I make it on time?

Yes, you will be ready by 7:41.

(3) How many minutes in 1 hour?

60 minutes

(4) How many teeth in 1 mouth? (take a guess!)

32 teeth

For #5-7, assume there are 24 kids in the class.

(5) How many fingers are in the class?

240 if you count thumbs, 192 if you don't include thumbs

(6) How many ears are in the class?

48 ears

(7) How many tongues are in the class?

24 tongues

Math Curse Challenge!

Answer Key

For #8-9, use the following quote. "The Mississippi River is about 4,000 kilometers long. An M&M is about 1 centimeter long. There are 100 centimeters in a meter, and 1,000 meters in a kilometer."

(8) Estimate how many M&M's it would take to measure the length of the Mississippi River.

$$4,000 \times 1,000 = 4,000,000 \text{ meters in the Mississippi River}$$

$$4,000,000 \times 100 = 400,000,000 \text{ centimeters, or M\&M's, in the Mississippi River}$$

(9) Estimate how many M&M's you would eat if you had to measure the Mississippi River with M&M's.

Answers vary!

(10) Find the next five numbers in the sequence below.

1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144

Each number is obtained by finding the sum of the previous two numbers in the sequence.

(11) How many minutes are in a year?

$$365 \times 24 = 8,760 \text{ hours in one year}$$

$$8,760 \times 60 = 525,600 \text{ minutes in one year}$$

Thank you for downloading “Math Curse” Challenge Questions!

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Cover slide clipart thanks to Melonheadz:



Scavenger Hunt

Number System

Created by Alex O'Connor



Math Scavenger Hunt

Number System

Materials:

- Math Scavenger Hunt sheet for students to show work and record answers.
- 12 different Math Scavenger Hunt questions relating to portions of the Number System common core standard.
- Math Scavenger Hunt Answer Key for teachers.

Instructions for Teachers:

- Print off a copy of slide two (the record sheet with 12 boxes) for each student.
- Post one copy of each question sheet around the room, in order by number. When I did this activity, I split the room into two halves and posted two sets of questions to help limit the number of students at each question.
- Place students at various questions to start. If possible, have one or two students per question.
- As students solve the problem they are on, they record their work and answer in the correctly numbered box on their record sheet. Once they have an answer to a question, they must find that answer on the top of another question card. This is then the next question that they must solve.
- Students progress through the scavenger hunt until they have solved all twelve questions.
- I recommend having your answer key with you, so that you can help students find their place if they get stuck!

Name: _____

Math Scavenger Hunt

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Name: _____

Math Scavenger Hunt (*Answer Key*)

1. 59.8	2. 9.15	3. 99.06
4. 55.2	5. $\frac{1}{2}$ mile	6. $1\frac{3}{7}$
7. 9	8. 16 cookies	9. $1\frac{7}{45}$
10. $\frac{7}{12}$	11. 144.96	12. $\frac{1}{6}$

#1

Previous Answer:

$$1\frac{7}{45}$$

$$6.5 \times 9.2$$

#2

Previous Answer:
16 cookies

$$36.6 \div 4$$

#3

Previous Answer:
144.96

$$32.16 + 66.9$$

#4

Previous Answer:
59.8

$$102.4 - 47.2$$

#5

Previous Answer:

9

A rectangular field has a width of $\frac{3}{4}$ of a mile and a length of $\frac{2}{3}$ of a mile. Find the area of the field.

#6

Previous Answer:

$$\frac{1}{6}$$

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

#7

Previous Answer:
99.06

Find the greatest
common factor of 36
and 45.

#8

Previous Answer:

$$\frac{7}{12}$$

416 cookies are divided
between 26 students.
How many cookies will
each student get?

#9

Previous Answer:

$\frac{1}{2}$ mile

$$\frac{5}{9} + \frac{3}{5}$$

Previous Answer:

$$1\frac{3}{7}$$

Jamie has a piece of wood that is $1\frac{1}{4}$ feet long. He cuts off $\frac{2}{3}$ of a foot. How long is the remaining piece of wood?

#11

Previous Answer:
9.15

$$18.12 \times 8$$

#12

Previous Answer:
55.2

$$\frac{3}{8} \times \frac{4}{9}$$

Thank you for downloading Math Scavenger Hunt – Number System!

Visit my blog at
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for more teaching ideas and resources.

Cover slide clipart thanks to Melonheadz:



Blueprint Project

Teacher Notes

Thank you for downloading my Blueprint Project! Following are some notes and key information about this project.

Materials Needed for Each Student:

- Blueprint Project cover page and checklist (included here)
- One piece of graph paper
- One piece of poster board
- Protractor and ruler (yardsticks are useful for the final draft)
- Pencil and colored pencils
- Sharpie or marker to outline blueprint walls

Blueprint Project Sequence and Tips:

- The Blueprint Project will take 1-2 weeks, depending on how much time you spend each day working on them.
- To introduce the project, I would recommend modeling how to create a blueprint, measure walls, and measure angles.
- Students will begin by creating a building of their choice (overhead view) on a piece of graph paper. All angles should be measured and labeled. All walls should be measured. After the walls are measured, I have students double the measurement and write that in parentheses, so that they have this number when creating their enlarged blueprint.
- Once the original blueprint is done, students enlarge the blueprint to twice the size of the original on poster board.
- Make sure students begin drawing their final blueprint in a spot on the poster board where it won't run off the page!
- Stress accurate measurements! This can be frustrating for students if they don't measure angles and lengths accurately, since their walls won't end up lining up on the final blueprint!

Blueprint Project

Congratulations! You have just accepted a job as an architect and have been assigned your first construction project. For your first project, you get to design a building of your choice. After creating and labeling your blueprint on grid paper, you will then be creating a larger scale model of your blueprint on poster board. The following page includes a checklist of everything you should include on your blueprints.

Architect Name: _____

FUN FACT!

In the real world, architects and civil engineers work together to design and construct buildings. Architects usually focus more on the design and layout, while engineers focus more on the construction of the buildings and making sure they are structurally sound!

Blueprint Project

Checklist

Original Blueprint Checklist (on graph paper):

Your first job is to create your original blueprint on a piece of graph paper. The original blueprint should not be colored, but should include all of the following things! Remember when measuring, to be sure to either label all of your rooms in centimeters or all of your rooms in inches. Don't do both!

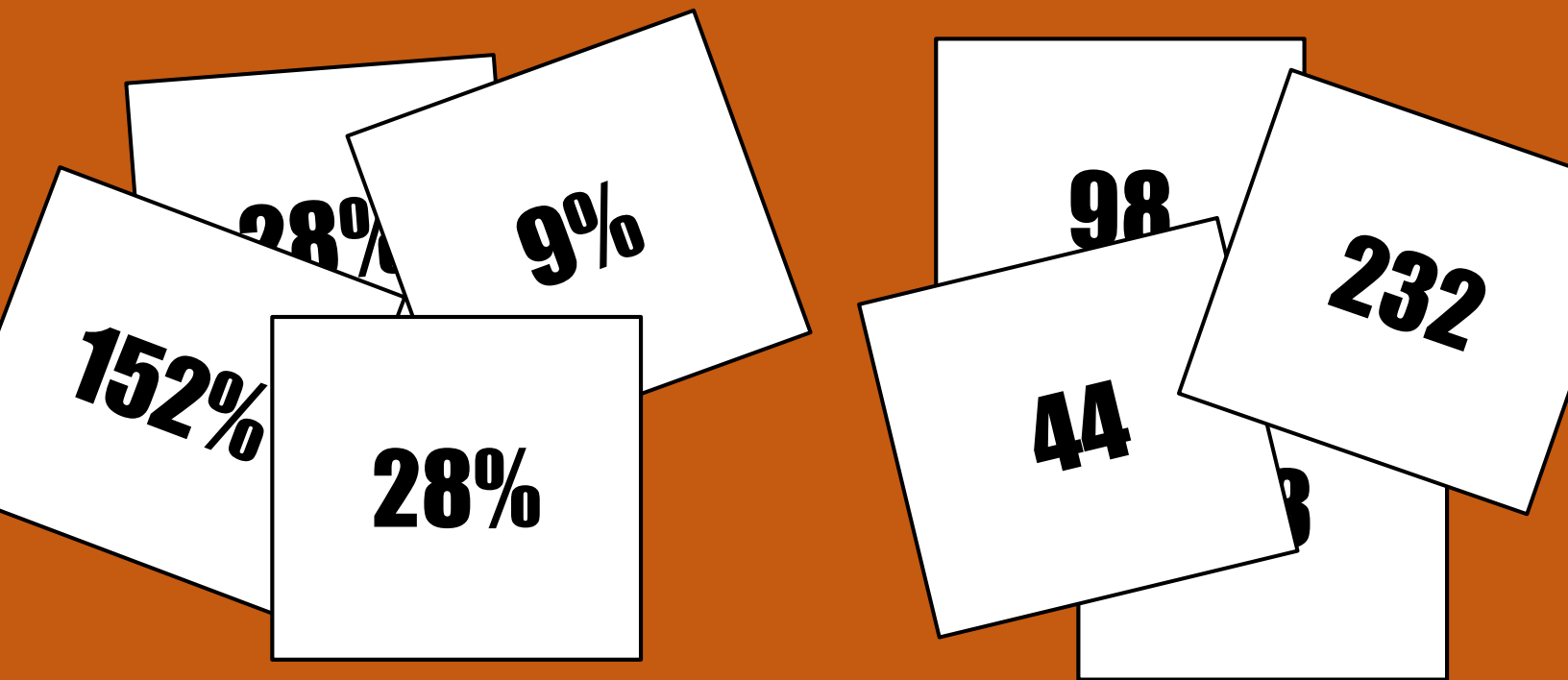
- ☐ Walls are neatly drawn with a straightedge
- ☐ All rooms are labeled (ex: bedroom, living room, etc.)
- ☐ All interior angles are accurately measured and labeled
- ☐ All wall lengths are accurately measured and labeled
- ☐ All wall lengths are doubled and written in parentheses next to the original measurement

Final Blueprint Checklist (on poster board):

After your original blueprint is complete, the next step is to enlarge your blueprint onto a piece of poster board. Your final blueprint should be twice the size of your original blueprint. All of the following things should be included!

- ☐ All angles were measured so that they match the original blueprint
- ☐ All walls were measured so that they are exactly two times as large as the original blueprint
- ☐ Rooms are neatly colored and labeled (ex: bedroom, living room, etc.)

Percent Scramble



Created by Alex O'Connor

Percent Scramble!

Rules:

On your turn, flip over a percent card and a number card. Then repeat with two new cards. You should have a two pairs of cards, each with one percent card and one whole number card. You may not mix and match the cards. See the example below.

*You may also modify the game so that each player draws only one percent card and one whole number card each turn. Then they find the percent of that number.

Draw 1:

26%

34

Draw 2:

98%

12

Without actually solving, you must choose whether you would like to use 26% of 34 or 98% of 12 to score points. Once you choose one, then you must use pencil and paper to figure out the answer. Your answer to the problem becomes your point total for the round. Record your point totals on the answer sheet. Round any answers to the tenths place.

Play five rounds or until time is up! When the game is finished, add up your scores for each round to find your total score and the winner.

Name: _____

Percent Scramble Answer Sheet

Round	Work	Answer
1		
2		
3		
4		
5		
Totals		

Percent Scramble Whole Number Cards

22	24	25	28
31	33	36	37
42	44	58	59
66	68	77	79
81	82	94	96

Percent Scramble Whole Number Cards

104	112	166	197
232	244	258	289
313	345	366	367
404	428	478	499
512	535	575	581

Percent Scramble Percent Cards

0.2%	0.6%	1%	8%
11%	14%	17%	19%
20%	22%	26%	28%
32%	35%	37%	39%
41%	43%	46%	49%

Percent Scramble Percent Cards

54%	55%	62%	68%
72%	73%	87%	88%
90%	92%	97%	99%
105%	148%	233%	269%
301%	343%	450%	488%

FREE Pi Day

3.1415926535...

Challenge



Created by Alex O'Connor

Pi Day Challenge

Materials:

- Copies of the Pi Day Circles included in this document
- Yarn or string, cut into pieces that are about two feet long (one piece for each group/student)
- Yardsticks or rulers for each group/student
- Scratch paper for students
- Calculators for each group (optional)

Instructions for Teachers:

- Discuss with students how the number pi is found, which is by dividing the circumference of a circle by its diameter. This works for a circle of any size!
- Individually (or in partners if you choose), have each student or group pick one of the Pi Day Circles, a piece of yarn, and a yardstick/ruler.
- Each student or group must measure the circumference and diameter of their circle. After measuring, they must divide their circumference measurement by their diameter measurement.
- Students enter their answer (I usually have a bucket set out to put their work in!).
- After class, go through the entries to see which student or group had the answer that was closest to pi! (3.141592...)

Useful Tips/Suggestions:

- Before students begin, it is helpful to model how to use the yarn to measure the circumference by laying the yarn as precisely around the circle as possible, straightening the yarn (without stretching it out!), and then measuring with a yardstick.
- My students also sometimes struggle with the measurement aspect. Before beginning the challenge, we talk about how to use the ruler – specifically how to measure to a fraction of an inch.
- The next page is a directions sheet for students if you would like to give them the directions in written form! I have never done this, but thought it might be useful!

Pi Day Challenge

Directions

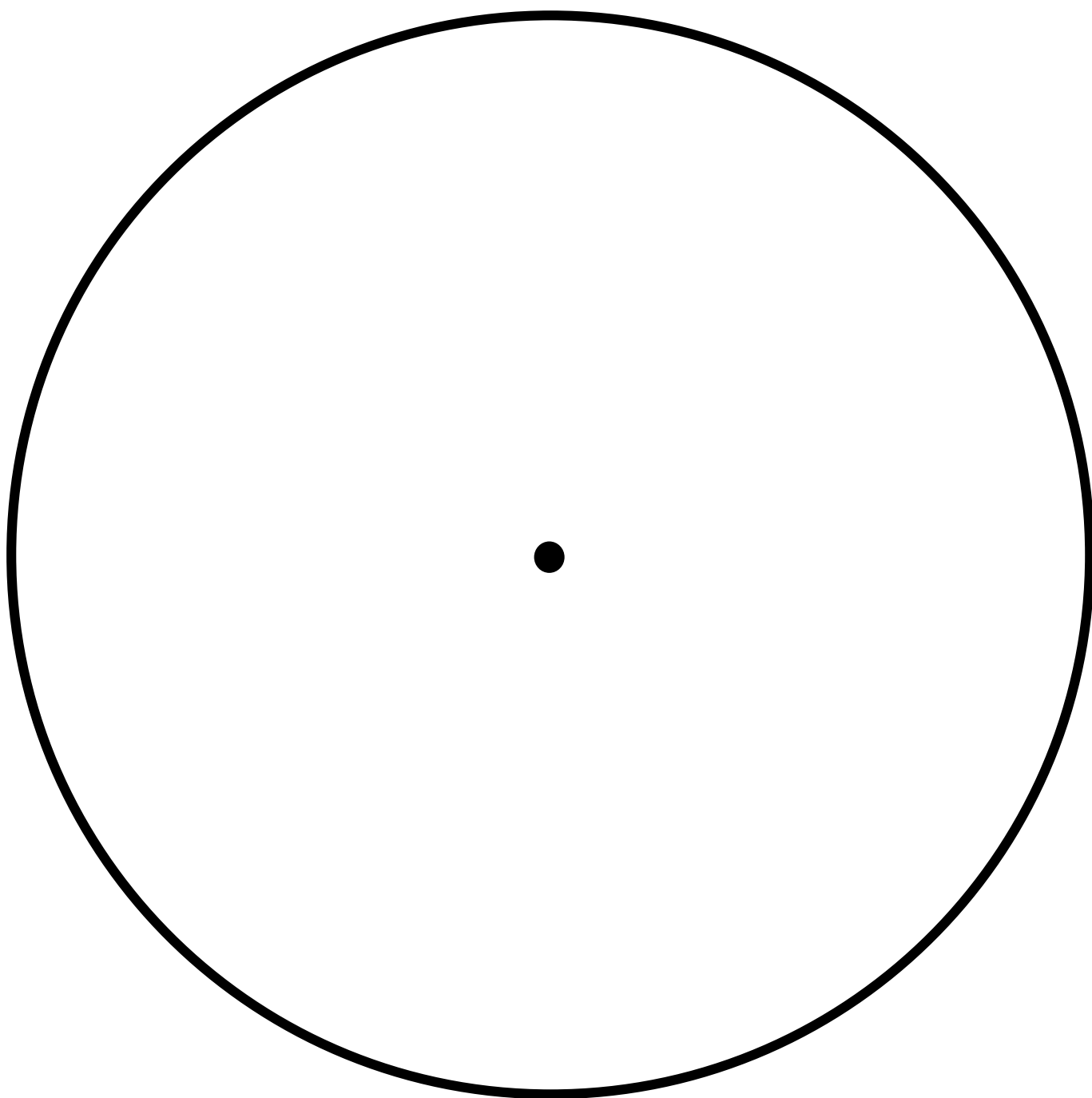
Materials:

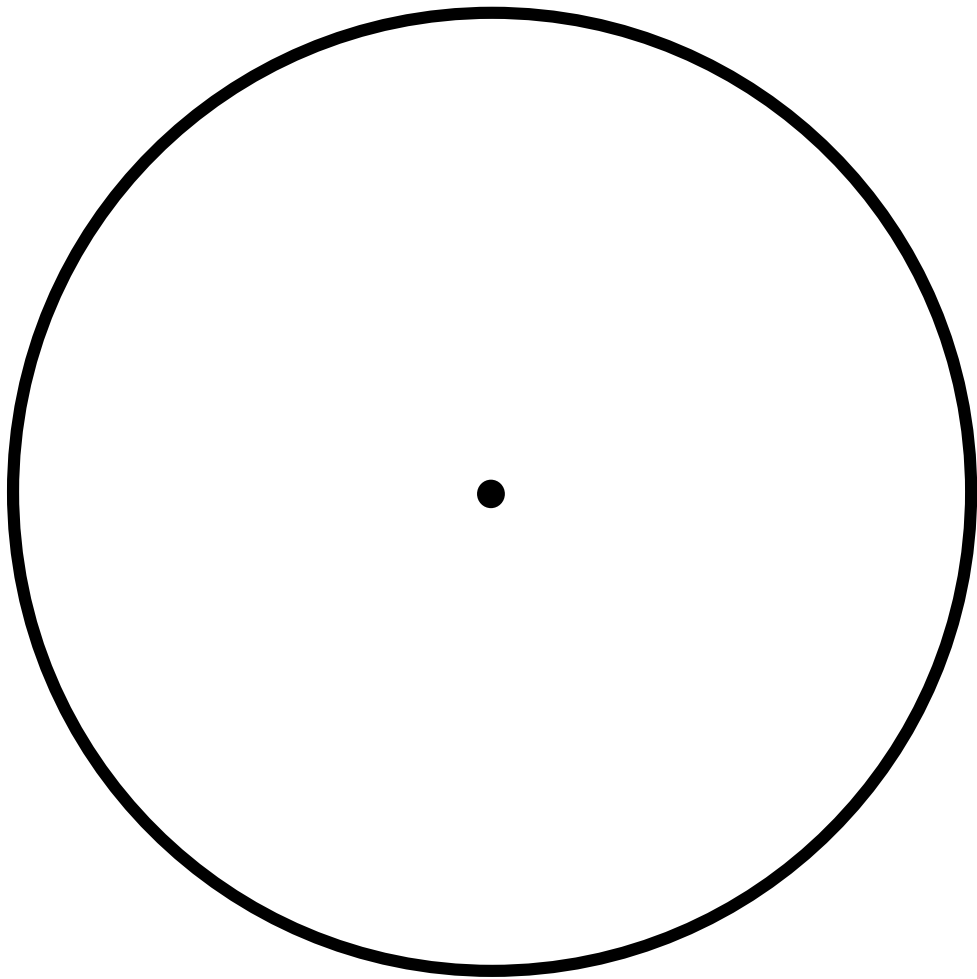
- Copies of the Pi Day Circles included in this document
- Yarn or string, cut into pieces that are about two feet long (one piece for each group/student)
- Yardsticks or rulers for each group/student
- Scratch paper for students
- Calculators for each group (optional)

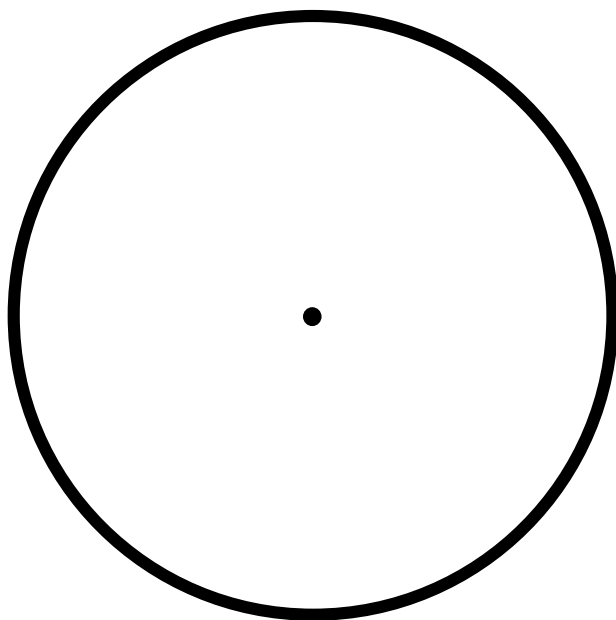
Here is the Challenge...

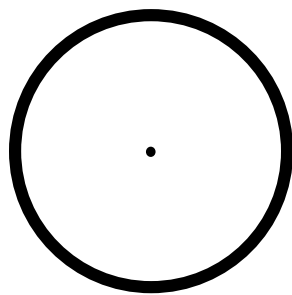
- Pick any of the Pi Day Circles.
- Measure the circumference and diameter of your circle. To measure the circumference, place yarn around the circumference of the circle. Straighten out the string and measure.
- Divide your circumference measurement by your diameter measurement.
- You are trying to get your answer as close to the number pi as possible.
- Good luck!

3.1415926535...









Thank you for downloading Pi Day Challenge!

Visit my blog at
[www.middleschoolmathman.blogspot.co
m](http://www.middleschoolmathman.blogspot.com)

for more teaching ideas and resources.
Blog about other Pi Day activities
coming soon! ☺

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