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# MATH-in-a-Flash

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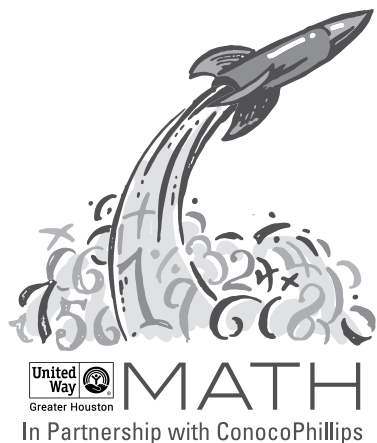


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# MATH

In Partnership with ConocoPhillips

A workbook full of amazing  
math problems and brain teasers  
that you can do in a flash.



## **Welcome students!**

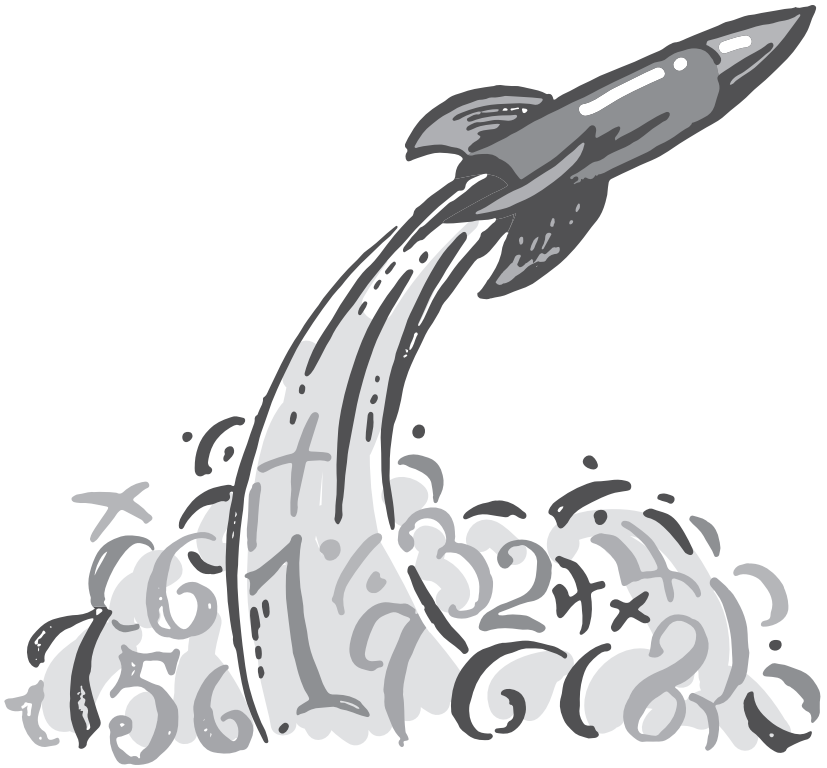
This book is designed for you to try your hand at some cool math problems and brain teasers that you can do in a flash! Each day of the week you will solve a fun problem.

### **How it works:**

- There is one problem per page with space for you to show your work.
- Take your time and read all problems carefully.
- If you are stuck, look in the back for the Resource Page.
- Remember, if you are in doubt, draw it!

We hope you enjoy *Math-in-a-Flash*. If you have any questions please ask an adult. We can't wait to see how fast your confidence builds each day as you work through the *math... in a flash!*

# Week One



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Each week Vanessa gets an allowance of ten dollars. She donates two dollars to United Way and buys snack for three dollars. How much money does she have remaining?



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Natalie went to the mall yesterday with some friends and purchased a shirt for ten dollars. If she wants to buy now and pay later would she pay with a credit card or a money order?



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Jane buys an apple for \$0.75 and pays with a \$5.00 bill.  
How much change will she get?



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Solve

8	-	2	+	1	=	
-		+		-		+
2	+	9	-	1	=	
+		-		+		+
8	-	8	+	10	=	
=		=		=		=
	+		+		=	

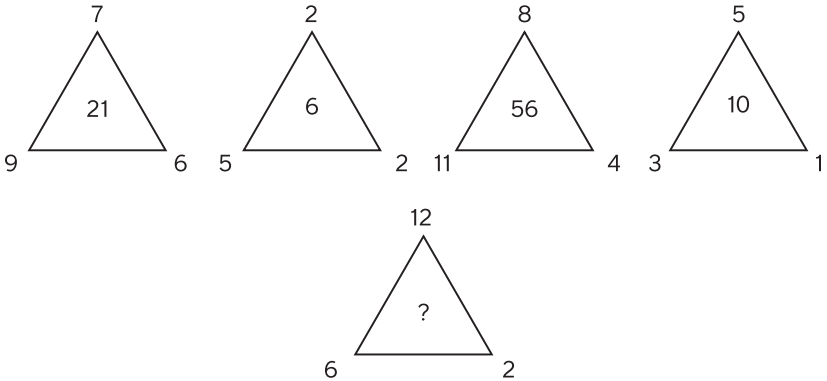


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## Challenge: So you think you can Math?

The numbers in the center of the pyramid are related to the numbers at each corner. What is the missing number in the middle of the last pyramid?





# Week Two



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Amy ordered 7 pizzas. She paid \$315.28. What is the cost of each pizza? *Remember to show your work.*



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Randy's team purchased 17 shares of Nike (NKE) for \$57.50 per share. How much did they pay for their stock?



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If Sloane earns \$211.01 after deductions of \$40.19, what was her gross income?



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Abby gets paid \$5 dollars each day that she babysits. She works four days a week. How much does she make in a **month?** (*assume there are 4 weeks in a month*)  
*Remember to show your work.*



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## Challenge: So you think you can Math?

Find the secret trail. Start from the circled number in the box. Using the operation provided at the bottom of the box, add the numbers to create a trail to the end of the circled number.

10	7	4	8
1	1	10	10
<b>START</b> → (10)	3	10	5
3	7	3	10
		+	(57) ↑ <b>END</b>



# Week Three



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Cindy has been saving \$30 per month for 9 months to purchase a new iPad. Walmart has a sale on iPads for \$300. Did she have enough to purchase the iPad?





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A rectangular field measures 10 ft. by 3 ft. What is the area of this field?



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You counted 60 eyes in the classroom. How many people are in your class?



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Melissa is preparing for a hot dog eating contest. Each day for the first week she ate 14 hot dogs. The next week she increased the number of hot dogs she ate each day by 3. How many hot dogs did Melissa eat in total over the 2-week period? *Remember to show your work.*



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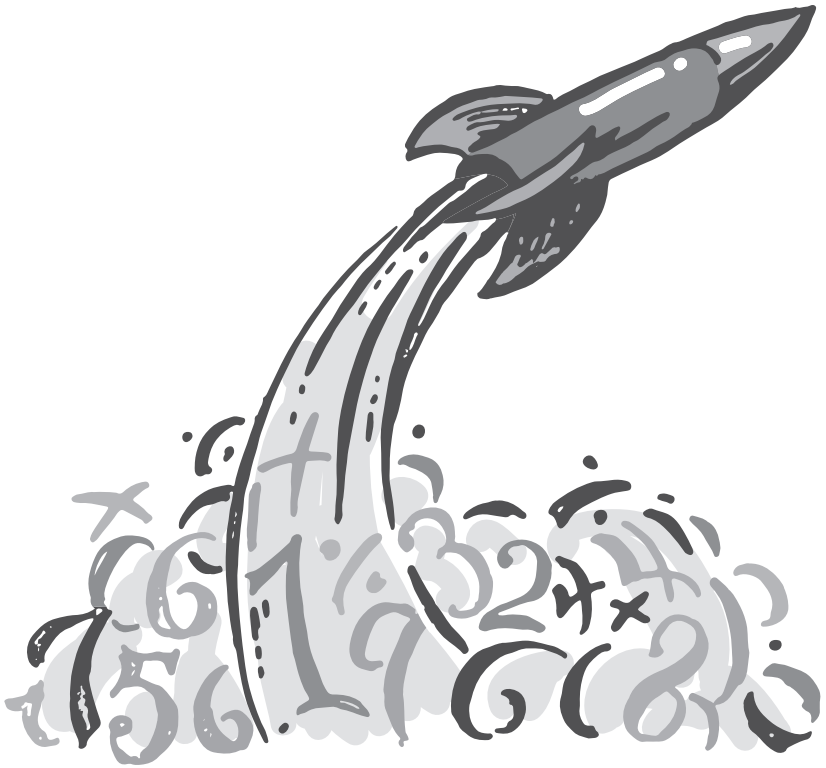
## Challenge: So you think you can Math?

What's the missing number? *Remember to show your work.*

5, 25, 125, \_\_\_\_\_, 3,125, 15,625



# Week Four



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Find the missing number:

$$\$100 + \$40 + \underline{\hspace{2cm}} = \$149$$



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Efran makes \$10.25 an hour. He worked 32 hours this week. How much money did he make?



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Rhema got a part-time job detailing cars for the Express Wash company. She earned \$150 dollars in wages. Her paycheck was \$100 dollars. What was taken from her paycheck?





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Janet is purchasing drinks for a party. She bought 4 packs of Dr. Pepper that came with a dozen cans. She purchased 2 packs of Sprite that came in packs of 8 cans, and she purchased 3 packs of Pepsi that came in packages of 6 cans. What is the total number of cans of soda that Janet purchased for the party? *Remember to show your work.*



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## Challenge: So you think you can Math?

The seven sets of numbers below all have a certain logic that is the same in all seven numbers. See if you can determine the relationship and come up with the final digit of the last number. *Remember to show your work.*

a. 1 3 8 2 1

b. 5 1 3 4 2

c. 6 0 0 2 7

d. 9 2 0 4 0

e. 2 5 1 1 6

f. 4 4 4 0 3

g. 7 0 3 1 ?



# So you think you can math?

More Challenge Questions



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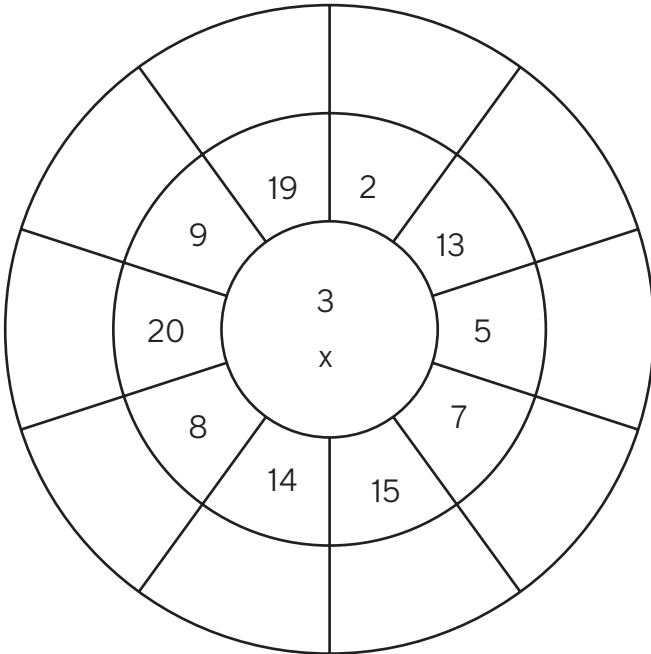
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Multiply the following:



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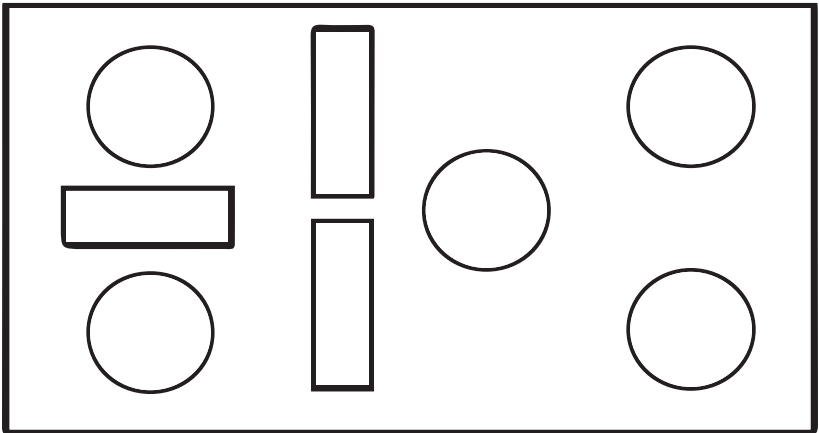
Jim rides the bus to and from school each day. A one-way trip is 8.12 kilometers. How many kilometers does he travel in 3 days? *Remember to show your work.*



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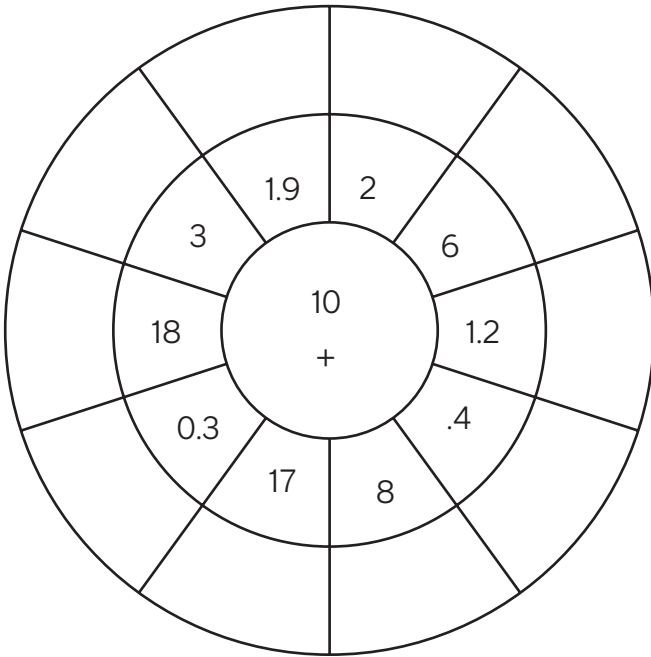
The floor plan below shows how The Venue sets up their main conference room. The circular tables seat 12 guests and the rectangular tables seat 8 people. If after receiving the floor plan, Mary asks them to add on 1 more circular table, how many people can be seated at the circular table? What's the total amount of people in the Venue if all seats are filled?



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Add the following:



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A broken scale is used to measure the height of the plant. The length of the broken scale is 12 cm. The height of the plant is 4.15 times greater than the broken scale. What is the height of the plant? *Remember to show your work.*





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Mark uses the computer for 12 hours. If the average power consumption of a computer per hour is 299 watt, how much power does Mark use? *Remember to show your work.*



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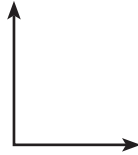
Classify the angle

- a. Acute
- b. Obtuse
- c. Right



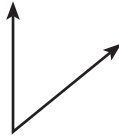
Classify the angle

- a. Acute
- b. Obtuse
- c. Right



Classify the angle

- a. Acute
- b. Obtuse
- c. Right



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Find the Area. *Remember to show your work.*



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Below is a partial magic square using the numbers 1-16. The rows, columns, and diagonals must each total the same sum. Place the final four numbers in the appropriate squares

16	9	2	7
6	?	?	13
11	?	?	4
1	8	15	10



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What number does Stem 2 and Leaf 6 represent on the Stem and Leaf plot?

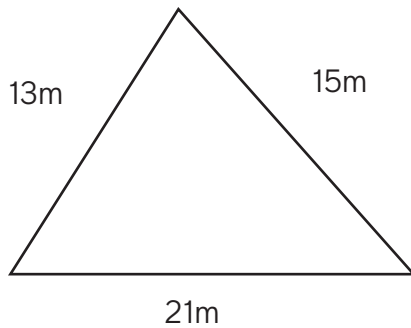
Stem	Leaf
1	2 3 3 5 7 8
2	2 6 6
3	5
4	0



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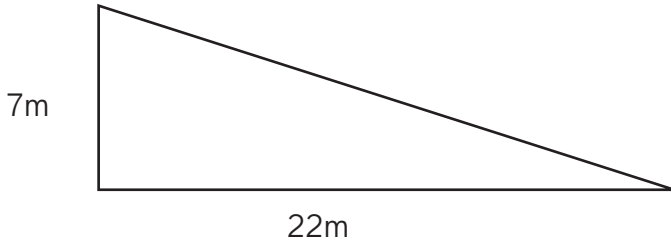
What is the perimeter of the triangle? *Remember to show your work.*



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Find the area of the triangle: *Remember to show your work.*



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Determine the equivalent fraction: *Remember to show your work.*

$$\frac{1}{2} =$$

a.  $\frac{3}{6}$

b.  $\frac{3}{4}$

c.  $\frac{2}{6}$

Comparing fractions: *Remember to show your work.*

Is  $\frac{3}{8} <$  or  $> \frac{5}{12}$





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Subtract the fraction and simplify if needed: *Remember to show your work.*

$$\frac{7}{6} - \frac{5}{6} =$$

Add the fraction: *Remember to show your work.*

$$\frac{3}{10} + \frac{4}{10} =$$

Add the fraction: *Remember to show your work.*

$$\frac{1}{3} + \frac{3}{8} =$$



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Write the following decimal as a fraction.

$0.27 =$



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Write the following decimal as a fraction.

$$0.5 =$$



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There are 14,240 books in a library. They are arranged on shelves that hold 8 books each. How many shelves are in the library? *Remember to show your work.*



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Find the missing number.

$$800 + 50 + \underline{\hspace{2cm}} + 1 = 7851$$



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Place Value: Fill the numbers in the Place Value

Number	Thousands	Hundreds	Tens	Ones
342				
68				
7951				



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Convert.

23 ft 7 in = \_\_\_\_\_ in



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Find the secret trail. Start from the circled number in the box. Using the operation provided at the bottom of the box, add or subtract the numbers to create a trail to the end of the circled number.

	9	2	4	2	
<b>START</b> →	<b>4</b>	5	5	5	
	5	6	6	5	
	4	10	8	7	
					+
					<b>49</b>
					↑ <b>END</b>

	5	7	8	1	
<b>START</b> →	<b>30</b>	10	5	2	
	9	1	10	3	
	5	1	6	9	
					-
					<b>1</b>
					↑ <b>END</b>





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Find the secret trail.

**START** →

(50)	9	2	4
7	4	2	5
10	9	1	6
3	3	10	7

-

(10)
------

↑ **END**

Solve:

5	-	2	+	10	=	
-		+		-		+
2	+	6	-	3	=	
+		-		+		+
5	-	2	+	8	=	
=		=		=		=
	+		+		=	



# Resources



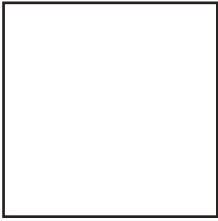
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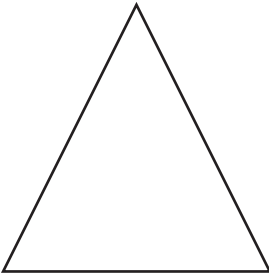
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Perimeter of a square:  $4a$

Area of a square:  $A = a^2$



Perimeter of a triangle:  $a + b + c$

Area of a Triangle:  $A = \frac{1}{2} bh$



Perimeter of a rectangle:  $2l + 2w$

Area of a rectangle:  $l \cdot w$

Obtuse Angle= Greater than 90 degrees

Acute Angle= Less than 90 degrees

Right Angle= 90 degrees



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## Problem Solving Strategies

1. Read the Problem.
2. Circle the numbers.
3. Underline the facts (key words) you need to solve the problem.
4. Draw a picture if needed to help you solve the problem.
5. Solve the problem and show your work.

## Distance Conversion

12 inches = 1 foot

## Order of Operations:

Parenthesis ( )

Exponent <sup>Exponent</sup>

Multiply (x)

Divide ( $\div$ )

Add (+)

Subtract (-)

Less Than <

Greater Than >

