

SUNSHINE MATH - 5

Saturn, XXV

Name: _____

(This shows my own thinking.)

- ★★ 1. The Drew Elementary School softball team needs bats and mitts for their team. If bats cost \$12 and mitts cost \$15, what is the greatest number of items they can buy for \$200 if they buy at least one of each?

Answer: _____

SALE!	
Bats	\$12
Mitts	\$15

- ★★★ 2. The numerator and denominator of a fraction are single digits which total 13. When you divide the numerator by the denominator, the answer is 0.86 rounded to the nearest hundredth. What is the fraction?

Answer: _____

- ★★★ 3. Use the menu to answer the questions.

<i>Hamburger</i>	\$1.49	<i>Hot Dog</i>	\$1.25
	<u>Small</u>	<u>Large</u>	
<i>Fries</i>	\$.75	\$.95	
<i>Cola</i>	.79	.99	
<i>Shake</i>	1.25	1.75	

- a. If you buy a hamburger, small fries, and small cola, what will your bill be after adding the 7% sales tax? (Remember, stores will round any part of a cent *up*!)

Answer : _____

- b. If you give your server \$5.00, how much change will you receive?

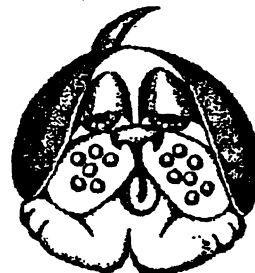
Answer : _____

- c. If you had \$2, what combinations of food would you be able to buy with no items the same, if your friend agrees to pay the tax for you?

Answer : _____

- ★ 4. Elvira was solving a complicated math problem. In her last step she divided by 5 and got the answer 13. Then she realized she should have multiplied by 5 instead of dividing by 5. What should her answer really have been? _____

- ★★★ 5. Mason was told by the vet to keep up with the weight of his 6 pups, which all looked alike. He weighed them by putting them all in a wooden box and weighing them together -- the scale showed 50 pounds. Then he weighed the box by itself -- it weighed 8 pounds. Answer the questions about Mason's equation for finding out how much each pup weighed.

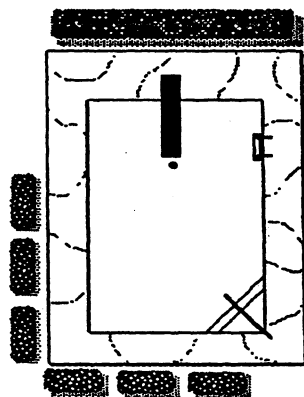


Equation: $6 \times W + 8 = 50$

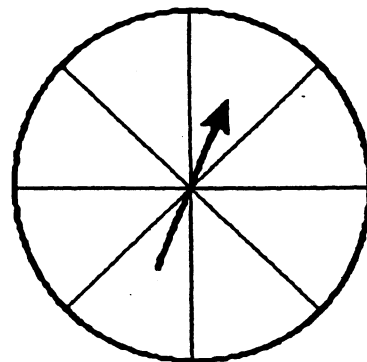
- What does W stand for in the problem? _____
- Why is W multiplied by 6 in the equation? _____
- What value for W solves the equation? _____

- ★★★ 6. Maxine's family wanted to build a pool in their backyard. The pool itself was to be 20 feet by 30 feet, and they wanted a 5-foot wide concrete border around it.

- What are the dimensions of the whole area, pool plus concrete walk? _____ by _____
- Before buying water sealer for the concrete walk, they need to know how many square feet of concrete they'll have to seal. How many square feet of concrete will there be? _____



- ★★ 7. Label the sections of the spinner R for red, B for blue, and G for green so that you will land on red one-fourth of the time, on blue half the time, and on green one-fourth the time.



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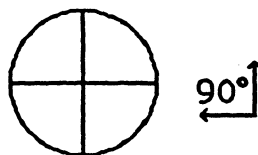
(This shows my own thinking.)

- ★★ 1. Saturn's diameter is about 71,000 miles. Its rings extend from the surface another 35,000 miles into space. What is the distance from the center of Saturn to the outer edge of its rings?

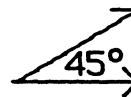
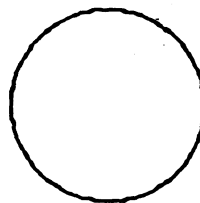
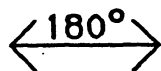
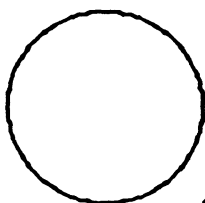
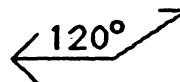
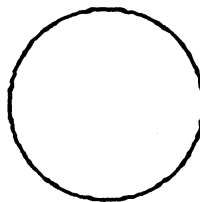
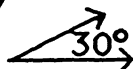
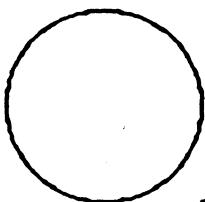


Answer: _____ miles

- ★★★★ 2. The circle shown here has four congruent angles drawn at the center. The angles are congruent to the 90° angle off to the side.



Draw as many angles as possible at the center of these circles which are congruent to the angles shown. All angles within each circle must share sides.





- ★★ 3. Find the pattern and write the next three numbers. Then answer this question: What number comes three numbers before the 2 if the pattern were extended to the left? _____

2, 1, $\frac{1}{2}$, $\frac{1}{4}$, _____, _____, _____,

- ★★ 4. Anne has duplicates of 125 stamps in her collection. She gives 50 to Sam, then she divides the remainder evenly among five friends. If two of her friends put their stamps together, how many will they have?

Answer : _____ stamps

- ★★★ 5. Henri spun a 3-color spinner 45 times. He filled in this tally chart and needs to complete it. Fill in the information he forgot.

Red		$\frac{13}{45}$
Blue		
Green		

- ★★ 6. Complete the problem.

$$\begin{array}{r}
 92\Box \\
 \times \Box 8 \\
 \hline
 \Box \Box 76 \\
 \Box 2 \Box \\
 \hline
 16,59\Box
 \end{array}$$

- ★★★ 7. Susan's age is 3 times Andrea's age. Barbara is twice as old as Andrea. The sum of their ages is 30. How old is each girl?

Susan is _____ years old; Andrea is _____ years old; Barbara is _____ years old.

- ★★★ 8. Andy wants to run a 3-mile race at the same pace all the way through the race. He knows he can do this in 24 minutes. He stations his Dad at the 2-mile mark to give him his time as he passes by. His Dad calls out 15:30 as he passes by. What else did his Dad say? Circle the best choice:
- a. Great! You're right on time!
 - b. Slow down! You're ahead of your pace!
 - c. Speed up! You're lagging behind your pace!

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(This shows my own thinking.)

- ★ 1. Brandon counted 13 kids ahead of him in line to buy concert tickets. He then counted 17 behind him in line. Five more kids got "heads" from someone ahead of him, but then 2 kids behind him dropped out. How many kids were in the line at that point?

Answer : _____

- ★★ 2. Juan had 7 pennies, 4 dimes, and 3 nickels in his pocket. If he reached into his pocket 10 times, putting the previous coin back each time, which number best indicates how many times you would expect him to pull out a penny? Circle your answer.

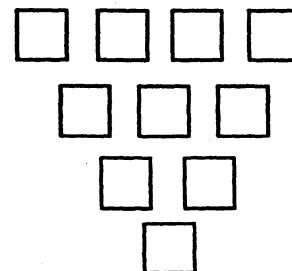
a. 7

b. 10

c. 1

d. 5

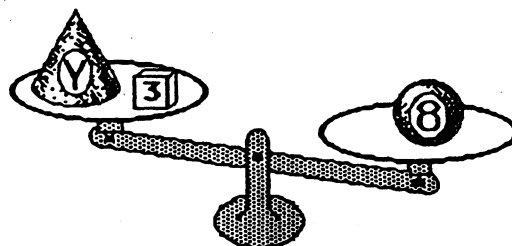
- ★★★★ 3. Place each number from 1 through 10 in a box. Each box must contain a number that is the *difference* of two boxes above it, if there are two above it.



- ★★ 4. What are the whole numbers that Y might represent on the scale, and the right side would still be heavier? Or, find the whole numbers Y which will make this number sentence true:

$$Y + 3 < 8$$

Answer: _____



- ★★★★ 5. The first 500 people to visit the baseball game were given their choice of an autographed ball, a cap, a pennant, or a cup with the team logo. $\frac{1}{4}$ chose the ball, $\frac{1}{2}$ chose a cap, $\frac{1}{10}$ chose a pennant. How many of each gift were given away?

Answer: ____ balls, ____ caps, ____ pennants, and ____ cups

- ★★ 6. Circle the sensible measurement for each item.

thickness of a book	28 mm	28 cm	28 m
height of a flagpole	10 cm	10 m	10 km
distance walked in $\frac{1}{2}$ hour	3 mm	3 kg	3 km
length of a field	30 dm	30 m	30 mm

- ★ 7. Jay earns \$10 each week during the summer mowing lawns in his neighborhood. His parents require him to save 25% of his earnings. If he works 9 weeks during the summer, how much can he expect to save by the end of the summer?

Answer: _____

- ★★★★ 8. The fifth grade was surveyed to find which pets they liked. The diagram shows the results:

- How many like dogs and birds but not cats? ____
- How many like only cats? ____
- How many like dogs, cats, and birds? ____
- What is the ratio of students who like all pets to those who answered the survey? ____

