

SUNSHINE MATH - 5

Saturn, XIII

Name: _____

(This shows my own thinking.)

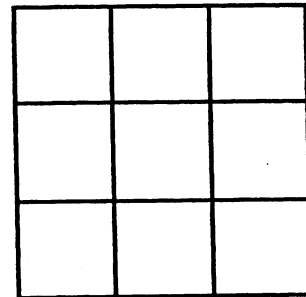
- ★ 1. Mr. McMathy needs 129 seats for his 5th grade program. If the seats are arranged in rows of 10 seats, how many rows will he need?

Answer: _____ rows

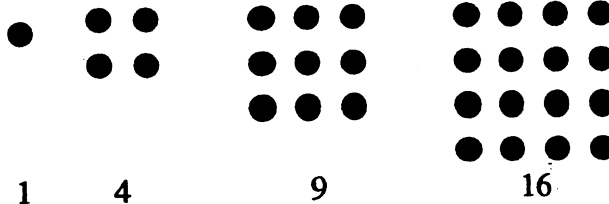
- ★★★ 2. In the United States, 154,000,000 tons of garbage are produced annually. On an average, about how many pounds is that each month for each person in the United States? The population of the United States is about 250 million.

Answer: _____ pounds

- ★★★★ 3. The horizontal, vertical, and diagonal columns of a magic square all add to the same sum. Use the digits 1 - 9 one time each to make a magic square.



- ★★★ 4. A *square number* is a number in which the dots can be arranged to form a square.



- a. Find the next three square numbers. _____
- b. Is 100 a *square number*? _____
- c. Is 200 a *square number*? _____

- ★★ 5. How many different rectangles exist which have whole numbers as the length and width, and also have an area of 36 sq. cm?

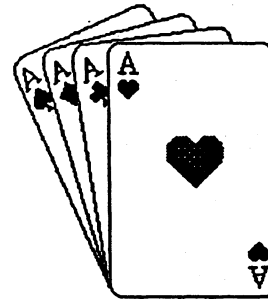
Answer: _____ rectangles

- ★★★ 6. You offer to do the dishes for your family for the next month. You suggest that they can pay you in one of three ways:

- \$0.50 each day.
- \$0.10 the first day, \$0.20, \$0.30 the 3rd day, and so on.
- \$0.01 the first day, \$0.02 the second day, \$0.04 the third day, and so on, doubling every day.

If the month has 31 days, which rate of pay would be best for you? Circle your choice.

- ★★ 7. You place these cards in a bag, and choose one without looking.



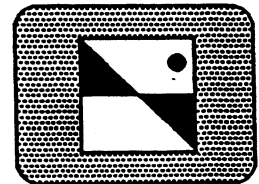
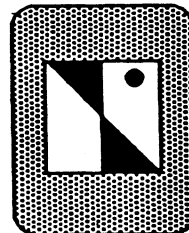
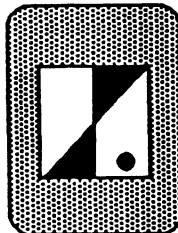
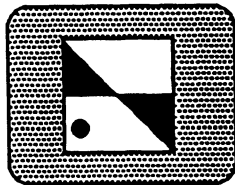
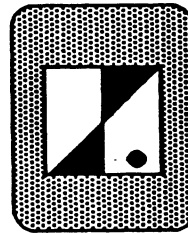
- What is the chance you will pull out a red card?

Answer: ____

- What is the chance you will pull out a ♣?

Answer: ____

- ★★ 8. Marcia drew the design to the right on a piece of clear plastic. She turned it 90° clockwise, then flipped it over horizontally and flipped it again vertically. Which is her card below? Circle it.



- ★ 9. Find the product: $5.7 \times 17.3 \times 651 \times 387 \times 0 \times 82.1 =$ _____

SUNSHINE MATH - 5

Saturn, XIV




Name: _____

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- ★★★ 1. Complete each sentence by drawing a picture in the space beside it.

a.  is to  as  is to _____

b.  is to  as  is to _____

c.  is to  as  is to _____

- ★ 2. Fill in the missing fractions. The same fraction is used in both spaces.

$$\left(\frac{4}{8} - \quad \right) + \left(\frac{5}{8} - \quad \right) = \frac{7}{8}$$

- ★ 3. Solve if there is enough information. If not, tell what is missing. Becky bought a pack of paper that cost \$5.95. Tony bought a pack that cost \$6.49. Who bought the most paper?

Answer: _____

- ★★★ 4. Maria works at the community relief center every summer. She is a really good worker. She earns \$8.00 per hour for her regular 40-hours a week. Last week she worked 47 hours. How much did Maria earn if she gets "time and a half" for overtime?

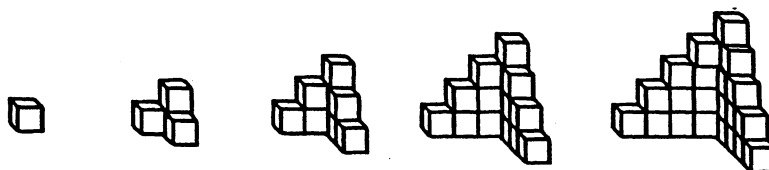
Answer: _____



- ★★★ 5. Complete the chart below. Each of the three students earns \$5.75 per hour.

Employee work schedule and amount earned				
Employee	In	Out	Hours	Amt. Earned
Bachie	8:00 A.M.	6:00 P.M.		
Dustin	12:30 P.M.	5:00 P.M.		
Monica	9:00 A.M.	5:30 P.M.		

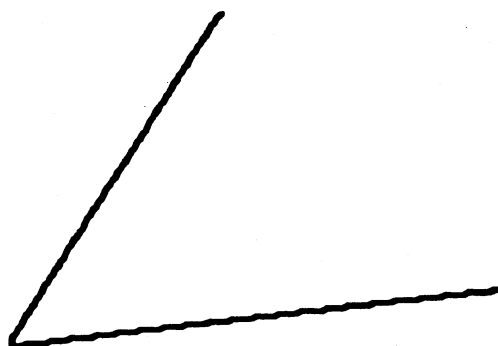
- ★★★★ 6. This pattern of buildings is made with blocks. Building 1 is made from 1 block, Building 2 from 4 blocks, and so on.



Bldg. 1 Bldg. 2 Bldg. 3 Bldg. 4 Bldg. 5 Bldg. 6

- How many blocks are needed for Building 3? _____
- How many blocks are needed for Building 4? _____
- How many blocks are needed for Building 10? _____
- How many blocks for Building n , where n could stand for any number? _____

- ★ 7. Fold this sheet of paper so that you *bisect* the angle. *Bisect* means that you exactly cut it in half. With your pencil, darken-in the crease in the paper. The line you draw is the *bisector* of the angle.



- ★★★ 8. Open a book and look at the two page numbers.
- Is their sum an *even* number, or an *odd* number? _____
 - Is their product an *even* number, or an *odd* number? _____
 - If you opened the book to two different pages, would your answers to (a) and (b) be the same? _____

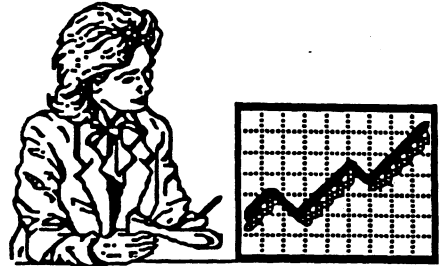
SUNSHINE MATH - 5

Saturn, XV

Name: _____

(This shows my own thinking.)

- ★★ 1. Ms. Hill and Mr. Booth both had \$500 to invest in the stock market. Ms. Hill bought shares of Sugarloaf at \$10 per share while Mr. Booth bought shares of Dandy's Butter at \$20 per share. Ms. Hill's shares went up in value \$0.20 per share. Mr. Booth's shares went up \$0.50 per share. How much did each earn on their shares?



Answers: Ms. Hill \$ _____

Mr. Booth \$ _____

- ★★★ 2. Tiffany has \$20 more than Ivan. Travis has \$20. All three together have \$41.

How much money does Tiffany have? _____ How much does Ivan have? _____

- ★ 3. What number do you need to add to these numbers to get 1000? Try solving these in your head. Then practice some more like these that you make up. Use your BRAIN POWER. When you turn in your paper you will be asked to solve a problem like these in your head.

a. $300 + \underline{\hspace{2cm}} = 1000$

b. $210 + \underline{\hspace{2cm}} = 1000$

c. $450 + \underline{\hspace{2cm}} = 1000$

d. $636 + \underline{\hspace{2cm}} = 1000$

Answer for the problem given when you turn in your paper: _____

- ★★★★ 4. You are having a pool party and invite 2 of your best friends. These two friends each invite 2 other people. These 2 people each invite 2 people that have not been invited. How many people will be invited if this process continues for 4 rounds? (Hint: Draw a diagram.)



Answer: _____ people

- ★ 5. Which equation has the same solution as the first equation? Circle it.

$$n + 13 = 21$$

a. $t - 13 = 21$ b. $17 = 25 - p$ c. $9 + d = 16$

- ★★ 6. A box will hold 23 puzzles. How many boxes are needed to hold 238 puzzles?

Answer: _____ boxes

- ★ 7. A jacket Jason wants is priced at \$18.99. The sales tax is 8%. What is the total cost of the jacket, including tax?

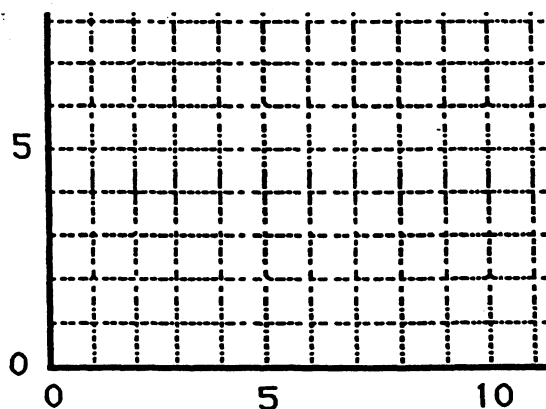
Answer: \$ _____

- ★ 8. Write the correct numbers in the boxes:

$$\begin{array}{r} 4 \square \\ \times 35 \\ \hline 2 \square 5 \\ 1410 \\ \hline 1 \square 4 \square \end{array}$$

- ★★★ 9. Connect the points with a heavy line as described below.

- Connect (10, 1) to (10, 7)
- Connect (2, 1) to (5, 1)
- Connect (7, 4) to (10, 4)
- Connect (7, 7) to (7, 1)
- Connect (2, 7) to (5, 7)
- Connect (3.5, 1) to (3.5, 7)



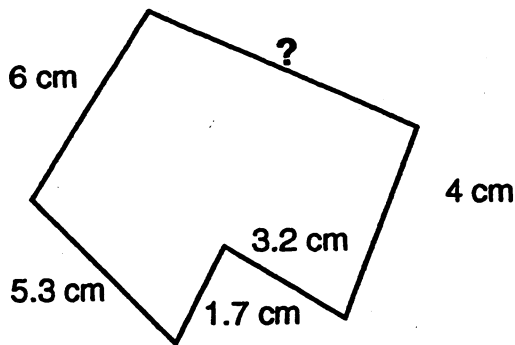
SUNSHINE MATH - 5

Saturn, XVI

Name: _____

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- ★★ 1. Find the missing measurement. The total perimeter of the polygon is 27 cm.



Answer: _____ cm

- ★★ 2. Fill the missing numbers in the division problem.

$$\begin{array}{r}
 \square\square \\
 \square 3 \overline{) 351} \\
 \underline{\square\square} \\
 \square 1 \\
 \underline{91} \\
 0
 \end{array}$$

- ★★★ 3. When you divide, you sometimes get a larger number than you started with. Show you understand this by placing the decimals in the answers below. The answers are correct, except for the decimal point not being there.

a. $1.25 \div 0.5 = 250$

b. $0.84 \div 0.7 = 120$

c. $13 \div 0.1 = 1300$

- ★★ 4. Report cards are coming out in three days. Your homework grades are 100, 90, 85, 78, 0, 80, and 92. The 0 occurred when you forgot to do your homework one night. What is the average of your homework grades?

Answer: _____

- ★★ 5. Using the grades from problem 4, what would your average be if you had done your homework that night, and made a 77 instead of a 0?

Answer: _____

- ★★★★ 6. Write an algebraic expression for each phrase below. Use the variable suggested.

- a. twice as old as Max's age a , less three years _____
- b. 10 times higher than the chair's height h , plus 3 inches _____
- c. \$3 more than half of what Jason makes d _____
- d. five trips of x miles each, plus another 5.8 miles _____

- ★★ 7. Kalia skateboards 5 blocks west and 8 blocks north to get to her friend's house. Each block is $\frac{1}{8}$ mile in length.



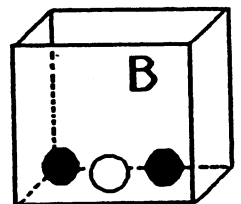
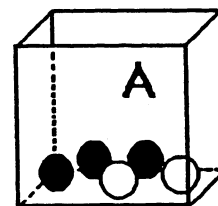
- a. How far does she travel in a round trip? _____ miles
- b. Rounded to the nearest whole mile, how far is a round trip? _____ miles

- ★ 8. Bailey has physical education class $1\frac{1}{4}$ hours on Monday, Wednesday, and Friday. How many minutes does he get physically educated each week?

Answer: _____ minutes

- ★★★ 9. Box A has 3 black marbles and 2 white marbles. Box B has 2 black marbles and 1 white marble.

If you have to close your eyes and pick a *black* marble to win a prize, which box gives you the best chance of winning? Bubble-in your answer.



- ☐ Box A gives the best chance.
- ☐ Box B gives the best chance.
- ☐ The boxes give the same chance of winning.