

# SUPERTARS III

Saturn, XX

Name: \_\_\_\_\_

(This shows my own thinking.)

- ★★★ 1. A *perfect number* is one that is the sum of its proper divisors. Six is the smallest *perfect number*:  $6 = 3 + 2 + 1$ . The next smallest *perfect number* is between 20 and 30. Find it!

Answer: \_\_\_\_\_

- ★★ 2. Find the missing digits in this problem.

$$\begin{array}{r} 317 \text{ r } 25 \\ 2 \overline{) \quad \quad 584} \\ \underline{\quad \quad 1} \\ \quad \quad 48 \\ \quad \quad 2 \underline{\quad} \\ \quad \quad \quad 214 \\ \quad \quad \quad 18 \underline{\quad} \\ \quad \quad \quad \quad 25 \end{array}$$

- ★★★ 3. Carlos wants to learn to play golf, but he wants some information before he begins. He learned that the local 18-hole golf course is 6,550 yards long. It is a "par 72" course, which means that a good golfer should play the entire course with a total of 72 strokes.



- a. What is the average distance (rounded off) for each hole? \_\_\_\_\_
- b. What is the average number of strokes required per hole? \_\_\_\_\_
- c. For his first round, Carlos scored 108. How many strokes over par was he? \_\_\_\_\_
- ★ 4. A can of soda contains approximately (circle the best answer)

350 l

350 ml

350 cl

- ★★★ 5. Shomika was helping her family pick oranges in their grove. She took some oranges home to share with three friends. She gave 3 more than half to Jennifer. Angela got half of the remainder and 3 more. She gave Josie half of the remainder plus 3. When she got home, she only had 10 oranges left. How many did she have when she left the grove?

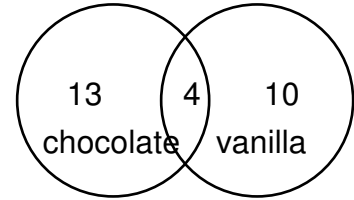
Answer: \_\_\_\_\_

- ★ 6. Solve this problem:

$$3 \times (8 + 6) - 8 = Y$$

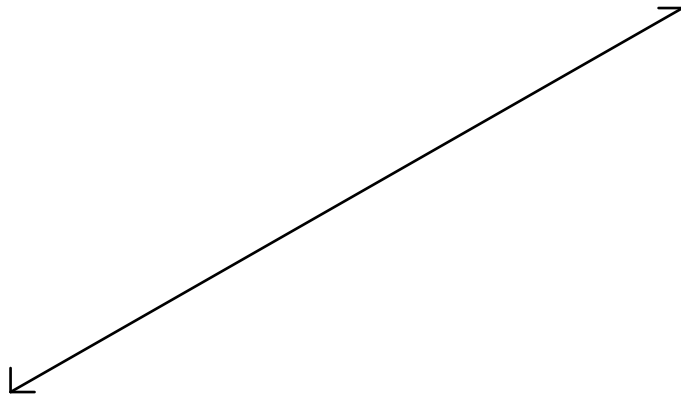
Answer:  $Y =$  \_\_\_\_\_

- ★★ 7. Joann's class is planning a math celebration after half the class scores at least 100 stars in Sunshine Math Superstars. She surveyed the class to find out how many like chocolate cupcakes and how many like vanilla cupcakes. She organized the information to give to her mom, who is going to do the baking. Her results are shown to the right:



- a. How many students were surveyed? \_\_\_\_\_
- b. What percent (rounded to the nearest whole percent) like chocolate cupcakes? \_\_\_\_\_ %

- ★ 8. Fold your paper to show a line that is *perpendicular* to the one below .



- ★ 9. Five fifth graders decided to clean up their community on Earth Day. Armed with dozens of garbage bags, they began work at 8:30 AM. They took two 15-minute breaks and a half-hour lunch break. When they had worked 5 hours, they knew it was time to go home. What time did they quit working?

Answer: \_\_\_\_\_

- ★★ 10.     3 weeks, 4 days, 13 hours, 21 minutes  
           - 1 week, 5 days, 18 hours, 30 minutes  
           \_\_\_ week, \_\_\_ days, \_\_\_ hours, \_\_\_ minutes