

Assignment: T2-27 Translate & Solve

Show your work!

1. Find the rule for the n^{th} figure. Then fill in the missing values in the table.

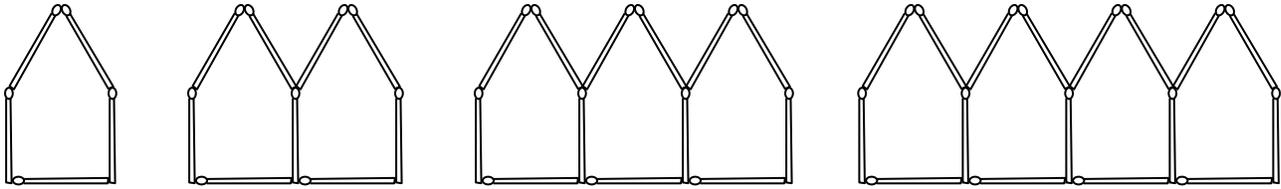


Figure Number	1	2	3	4	5	6	...	n	...	200
Number of Matchsticks	5	9								
Number of Matchsticks in the Perimeter of the Figure	5	8								

- a) Hayden says the rule for finding the perimeter is $3(n-2)+8$. Explain how you think he came up with that rule.

Set-up and solve an equation for the unknown values. Draw a picture or diagram to help.

- In a triangle, the first angle is half the measure of the second and the third is 3 times as much as the second. Find the measure of each angle.
- In a quadrilateral, the second angle is 10 more than the first angle, the third angle is the same as the first, and the fourth angle is 4 times the first angle. Find the measure of each angle.
- In a pentagon, the first and second angles are equal. The third angle is 3 times the first angle, the fourth angle is 28 less than the first, and the fifth angle is double the second angle. Find the measure of each angle.

5. Berkley plays the trumpet in the school band and has a goal to practice 150 minutes per week. On Monday she practiced half as long as she did on Tuesday. She forgot to practice on Wednesday and had to practice extra on Thursday and Friday. She practiced 15 minutes more on Thursday than Tuesday and on Friday she practiced twice as long as Tuesday. How many minutes did she practice per day?

6. Mr. Jones drove to Boise, Idaho in 4 days. On Monday and Wednesday he traveled the same distance. On Tuesday he traveled 2 times as far as he did on Monday, and on Thursday he traveled 258 miles. If the total trip covered 602 miles, how far did Mr. Jones travel on Tuesday?

7. A total of 960 students attend Bosco Middle School. Some students walk to school, some ride the bus, and the rest come by car. The number of students that ride the bus is 6 times greater than the number we come by car. The number of students who walk to school is half the number of students who ride the bus. How many students walk to school?

8. The neighborhood grocery store sold 1463 bottles of soft drinks last month. Twice as many bottles of root beer were sold than lemon-lime, and twice as many bottles of cola were sold than root beer. How many bottles of each soda were sold?

9. Logan is training for a big race. He ran three times as far on Thursday as he did on Tuesday and 1.5 miles more on Saturday than he did on Thursday. If he ran a total of 15.5 miles in the week, how far did he run on Thursday?

10. Michelle was sorting her baseball cards and realized that she has twice as many Yankees cards as Mariners cards and 25 less Marlins cards as Yankees cards. If she has a total of 140 cards, how many Yankees baseball cards does she have?