

Application Problems

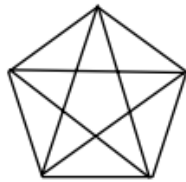
2.8.1

Terrence is making shapes with 12 toothpicks. Draw 3 different shapes he could make using all of the toothpicks. How many other combinations can you find?



2.8.2

How many triangles can you find? (Hint: If you only found 10, keep looking!)



2.8.3

Three sides of a quadrilateral have the following lengths: 19 cm, 23 cm, and 26 cm. If the total distance around the shape is 86 cm, what is the length of the fourth side?

2.8.4

None

2.8.5

Owen had 90 straws to create pentagons. He created a set of 5 pentagons when he noticed a number pattern. (Draw on the board, as shown below.) How many more shapes can he add to the pattern?

2.8.6

Frank has 19 fewer cubes than Josie. Frank has 56 cubes. They want to use all of their cubes to build a tower. How many cubes will they use?

2.8.7

Mrs. Libarian's students are picking up tangram pieces. They collect 13 parallelograms, 24 large triangles, 24 small triangles, and 13 medium triangles. The rest are squares. If they collect 97 pieces in all, how many squares are there?

2.8.8

The students were making larger shapes out of triangles and squares. They put away all 72 triangles. There were still 48 squares on the carpet. How many shapes were on the carpet when they started?

2.8.9

Mr. Thompson's class raised 96 dollars for a field trip. They need to raise 120 dollars.

- a. How much more money do they need to raise in order to reach their goal?
- b. If they raise 86 more dollars, how much extra money will they have?

2.8.10

Felix is passing out raffle tickets. He passes out 98 tickets and has 57 left. How many raffle tickets did he have to start?

2.8.11

Jacob had collected 70 baseball cards. He gave half of them to his brother Sammy. How many baseball cards does Jacob have left?

2.8.12

Tugu made two pizzas for himself and his 5 friends. He wants everyone to have an equal share of the pizza. Should he cut the pizza into halves, thirds, or fourths?

2.8.13

None

2.8.14

Brownies take 45 minutes to bake. Pizza takes half an hour less than brownies to warm up. How long does pizza take to warm up?

2.8.15

At Memorial School, students have a quarter hour for morning recess and 33 minutes for a lunch break. How much free time do they have in all? How much more time for lunch than recess do they have?

2.8.16

On Saturdays, Jean may only watch cartoons for one hour. Her first cartoon lasts 14 minutes, and the second lasts 28 minutes. After a 5-minute break, Jean watches a 15-minute cartoon. How much time does Jean spend watching cartoons? Did she break her time limit?