

Activity 11 Assessment

Exploring Ratios

Representing Equivalent Ratios and Rates

Represents and records ratios and rates symbolically.

10 glue sticks cost \$4.
How much will 60 glue sticks cost?

For example, using rates:

| | | | | | | |
|-------------|----|----|----|----|----|----|
| Glue Sticks | 10 | 20 | 30 | 40 | 50 | 60 |
| Cost (\$) | 4 | 8 | 12 | 16 | 20 | 24 |

"I skip-counted by 10s and 4s."

Represents and creates equivalent ratios and rates.

10 glue sticks cost \$4.
How much will 60 glue sticks cost?

For example, using ratios:

"The ratio of glue sticks to cost is 10:4. To find the cost of 60 glue sticks, I multiply each term by 6."

$$10 \times 6 : 4 \times 6$$

$$60 : 24$$

Represents and creates in-between ratios and rates.

A crafter sells 2 hand-painted pots for \$18. How much will the crafter make if 7 pots are sold?

For example, using rates:

| | | | | | |
|------------------|----|----|----|----|----|
| Pots Sold | 2 | 4 | 6 | 8 | 10 |
| Amount Made (\$) | 18 | 36 | 54 | 72 | 90 |

"7 is halfway between 6 and 8, so I find the number halfway between 54 and 72, which is \$63.00."

Flexibly solves problems involving ratios, including percents, and rates.

The ratio of dogs to cats in the animal shelter is 8:12. Show the comparison using percents.

"The whole is $8 + 12 = 20$.
Since percent is "out of 100", I multiply each term in the ratio by 5 because $5 \times 20 = 100$.
 $8 \times 5 : 12 \times 5$, or 40:60
40% of the animals are dogs and 60% are cats."

Observations/Documentation