

Name: _____

Visualizing Ratios with Tape Diagrams

Tape diagrams are one way to visualize a ratio relationship. Set up parallel bars using the correct number of segments to reflect the ratio. Since each segment represents the same quantity, the diagram can be used to solve problems.

example: For every 2 movies Giovanni owns, he owns 5 books. If Giovanni owns 12 more books than movies, how many movies does he own?

Step 1. Draw segmented bars to reflect the ratio: 2 movies to 5 books.

movies

--	--

books

--	--	--	--	--

Step 2. Identify the part of the diagram showing the known quantity: 12 more books than movies.


movies

--	--

books

--	--	--	--	--

12



Preview

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Draw tape diagrams to answer the questions. Show your work.

1. A grocery store stocks boxes of pasta in a ratio of 1 box of wheat to 4 boxes of regular. If the store stocks 350 total boxes of pasta, how many are regular?

answer: _____

2. Nevaeh's grade took a survey. For every 3 students who preferred pop music, 2 preferred rock. If 22 students preferred rock, how many preferred pop?

answer: _____

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3. The quilt Maisy is making uses 7 pieces of red fabric for every 3 pieces of black fabric. If she uses 36 more pieces of red fabric than black fabric, how many pieces of black fabric will she use?

answer: _____

4. Esteban sells jars of specialty slime in a ratio of 2 glitter slimes for every 5 plain slimes. If he sold 30 jars of glitter slime, how many jars of plain slime did he sell?



answer: _____

6. Mr. Cisneros's bakery sells 3 donuts for every 5 cookies. If he sold 144 donuts and cookies combined, how many were cookies?

answer: _____

ANSWER KEY

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movies

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ANSWER KEY

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3. The quilt Maisy is making uses 7 pieces of red fabric for every 3 pieces of black fabric. If she uses 36 more pieces of red fabric than black fabric, how many pieces of black fabric will she use?

red fabric

9	9	9	9	9	9	9
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$$36 \div 4 = 9$$

$$9 \times 3 = 27$$

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cookies

18	18	18	18	18
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answer: 90 cookies