

Purpose

Find and use unit rates to solve problems

Math Words

lowest The lowest term ratio or base ratio for 2:4 and 2.5:5 is 1:2.

per My printer prints 3 photos per minute.

3 photos 1 minute 3 photos minute

is a unit rate.

4 cans for one dollar 3 dollars/pound

55 miles hour

Starter Problem.....

Energy bars are on sale at 20 bars for \$5. How many can you buy for \$18? _____

··Starter Problem-······

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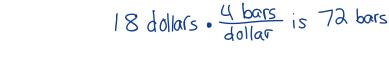
Student Thinking



It's easy to find out how many bars for \$1. I divided in my head and got 4 bars for \$1. So, \$18 buys 72 bars. The number of bars will always be 4 times as many as the number of dollars.



20 bars cost 5 dollars 4 bars cost 1 dollar





I made a table. It's 20 for \$5, 40 for \$10, and 80 for \$20. But it skips over \$18. That's \$2 less than \$20, so I subtract 2 from 80. It's 78 bars.



BARS	20	40	80	78	ANSWER:
DOLLARS	_5	10	20	18	78 BARS

Things to Remember

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Our Turn

Solve each problem. Some of these are easier to solve by thinking about how much for 1 (the unit rate); others are by using a scale factor.

1. 60 boxes of toys can be packed in 20 minutes. How many boxes can be packed in 15 minutes?

2. Glass beads are on sale at 100 beads for \$4. How many beads can you buy for \$8?

3. Toy cars are on sale at \$12 for 24 cars. How much should 20 cars cost?

My Turn

Solve each problem. Some of these are easier to solve by thinking about how much for 1 (the unit rate); others are by using a scale factor.

1. Snack Packs are on sale at \$8 for 24 packs. How many Snack Packs can you buy with \$10?

2. Peanuts are on sale at \$10 for 5 pounds. How many pounds can you buy for \$25?

3. 4 boxes of chocolates can be packed in 20 minutes. How long should it take to pack 9 boxes?

Multiple Choice Mini Lesson

Fill in the circle next to the answer you choose.

- Lunch bags are on sale at 100 bags for \$5. How many bags should be sold for \$7?
 - O 20
- O 70
- O 120
- O 140
- 2. Carol's birds eat 6 pounds of birdseed in 24 days. At this rate, how many pounds are needed for 60 days?
 - $O(\frac{1}{4})$
- 0 4
- O 10
- O 15



STUDENT PAGE

How Many for 1?

NAME:

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Writing	Tack	Mini	Lesson
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It takes 4 kilograms of grass seed to plant 100 square meters of grass. Explain how you know that it would take 7 kilograms of seed to plant 175 square meters of grass. You may make a drawing to help you explain.

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How Many for 1?

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NAME:

Writing Task Mini Lesson

It takes 4 kilograms of grass seed to plant 100 square meters of grass. Explain how you know that it would take 7 kilograms of seed to plant 175 square meters of grass. You may make a drawing to help you explain.