



7th Grade Math

Lesson: April 9th

Learning Topic:

Students will identify and use unit rates.

Let's Get Started:

Watch Video: [Apply Unit Rates and Ratios to the Real World](#)

Warm-Up

Match the rate on the left to the corresponding unit rate on the right.

21 items in 3 boxes

9 items per box

100 items in 4 boxes

36 items per box

108 items in 12 boxes

7 items per box

216 items in 6 boxes

25 items per box

Warm-Up: Answers

21 Items in 3 Boxes

100 Items in 4 Boxes

108 Items in 12 Boxes

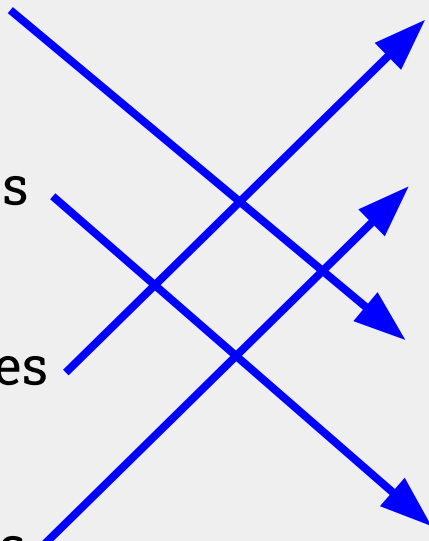
216 Items in 6 Boxes

9 items per box

36 items per box

7 items per box

25 items per box



Practice

Use proportional reasoning to solve each problem.

A video game store was getting rid of old games, selling them 3 for \$34.26. If they sold 2 games, how much money would they have made?

A supermarket had bags of *red* grapes for \$27.09 for 7. The also had bags of *green* grapes priced at \$14.96 for 4. Which type of grape is most expensive?

Practice Answers

Use proportional reasoning to solve each problem.

A video game store was getting rid of old games, selling them 3 for \$34.26. If they sold 2 games, how much money would they have made?

$$\frac{\$34.26}{3 \text{ games}} = \frac{C}{2 \text{ games}}$$
$$68.52 = \frac{3C}{3}$$
$$C = \$22.84$$

A supermarket had bags of red grapes for \$27.09 for 7. The also had bags of green grapes priced at \$14.96 for 4. Which type of grape is most expensive?

$$\frac{\text{Cost}}{\text{Bags}} \quad \frac{\$27.09}{7} = \frac{x}{1}$$
$$\$3.87 = x$$

$$\frac{\text{Cost}}{\text{Bags}} \quad \frac{\$14.96}{4} = \frac{x}{1}$$
$$\$3.74 = x$$

Remember to set up your proportional relationships (fractions) correctly.

To find the answer, cross-multiply and solve for your variable.

Practice

Go to this website:

[IXL - Solve Proportion Word Problems](#)

1. Click on the link.
2. Work the problem on your own paper and choose your answer. You may want your calculator.
3. Type in your answer and click “Submit”

Sandra jarred 24 liters of jam after 4 days. How much jam did Sandra jar if she spent 6 days making jam? Assume the relationship is directly proportional.

liters

Submit

Practice

Answer the questions on a piece of paper.

Use proportional reasoning to solve each problem.

1. A book store was selling 5 books for \$27.25. Online you could buy 6 books for \$32.16. Which place has a lower unit price?
2. At the store, beef jerky was \$73.70 for 5 pounds. If you bought 7 pounds, how much would it cost?
3. In *September*, a clothing store had a sale where you could get 3 scarves for \$13.35. In *October*, the price was changed to 5 scarves for \$22.65. On which month did a scarf cost the most?
4. At a comic book convention, *Vendor 1* was selling a set of 5 comics for \$53.10. *Vendor 2* was selling a set of 3 comics for \$31.71. Which vendor has a higher unit price?
5. At the produce store, you can buy 4 bags of bananas for \$22.52. How much would it cost if you were to buy 2 bags?

Practice Answers

1. A book store was selling **5 books for \$27.25**. Online you could buy **6 books for \$32.16**. Which place has a lower unit price?

$$\begin{array}{l} \text{Cost} \\ \text{Books} \end{array} \quad \frac{\$ 27.25}{5} = \frac{x}{1}$$
$$\$5.45 = x$$
$$\begin{array}{l} \text{Cost} \\ \text{Books} \end{array} \quad \frac{\$ 32.16}{6} = \frac{x}{1}$$
$$\$5.36 = x$$

2. At the store, beef jerky was **\$73.70 for 5 pounds**. If you bought **7 pounds, how much would it cost?**

$$\begin{array}{l} \text{Cost} \\ \text{pounds} \end{array} \quad \frac{\$ 73.70}{5} = \frac{x}{7}$$
$$\$103.18 = x$$

3. In *September*, a clothing store had a sale where you could get **3 scarves for \$13.35**. In *October*, the price was changed to **5 scarves for \$22.65**. On which month did a scarf cost the most?

$$\begin{array}{l} \text{Cost} \\ \text{scarves} \end{array} \quad \frac{\$ 13.35}{3} = \frac{x}{1}$$
$$\$4.45 = x$$
$$\begin{array}{l} \text{Cost} \\ \text{scarves} \end{array} \quad \frac{\$ 22.65}{5} = \frac{x}{1}$$
$$\$4.53 = x$$

Practice Answers (Continued)

4. At a comic book convention, *Vendor 1* was selling a set of **5 comics for \$53.10**. *Vendor 2* was selling a set of **3 comics for \$31.71**. Which vendor has a higher unit price?

$$\begin{array}{l} \text{Cost} \\ \text{comics} \end{array} \quad \frac{\$53.10}{5} = \frac{x}{1} \quad \begin{array}{l} \text{Cost} \\ \text{comics} \end{array} \quad \frac{\$31.71}{3} = \frac{x}{1}$$
$$\$10.62 = x \qquad \qquad \qquad \$10.57 = x$$

5. At the produce store, you can buy **4 bags of bananas for \$22.52**. **How much would it cost if you were to buy 2 bags?**

$$\begin{array}{l} \text{Cost} \\ \text{bags} \end{array} \quad \frac{\$22.52}{4} = \frac{x}{2}$$
$$\$11.26 = x$$

Additional Links

Click on the links below to get additional practice and to check your understanding!

- ❑ Click on the picture.
- ❑ Choose either **PLAY** or **FLASHCARDS**.
- ❑ Work the problems on your own paper and choose your answer. You may want your calculator.



Additional Links

Click on the links below to get additional practice and to check your understanding!

- ❑ Click on the link.
- ❑ Answer the questions that follow.
- ❑ If you get stuck, there is an learn with example link that can help!

[Unit Rate Practice](#)



[Learn with an example](#) ▼

Find the unit rate.

18 flowers in 3 vases = flowers per vase

The screenshot shows the IXL website interface. At the top, there is a navigation bar with the IXL logo and a green header with tabs for Learning, Diagnostic, and Analytics. Below the header, there are icons for Recommendations, Skill plans, Math, Language arts, Science, and Social. The main content area shows the path: Seventh grade > 1.5 Unit rates 2NB. A blue link labeled "Learn with an example" with a dropdown arrow is visible. Below the link, the problem is presented: "Find the unit rate. 18 flowers in 3 vases = flowers per vase". A green "Submit" button is at the bottom.