First 5 Minutes — Review Question

GRADE 6 • TOPIC 5 • LESSON 5.6 | 5 points • Work independently

Lesson 5.6 • Compare Unit Rates

Find the unit price of 8 items for $14.

1. Show each step in your notebook.
2. Explain the operation or rule you used.

Real-Life Connection & Key Concepts

Essential question

How can you use unit rates to compare?

Solve & Discuss It!

Rick’s remote-control car travels 150 ft in 30 seconds. Nikki’s car travels 80 ft in 20 seconds. Whose car is faster? Compare using precise units.

What we will learn

Compare greater and lesser rates using the same units; identify better buys; explain why the direction matters.

Definitions & rules

Find the same kind of unit rate for each option.

Greater speed is faster; lower cost per unit is usually the better buy.

Convert units before comparing if needed.

Example 1 — Compare Unit Rates

GRADE 6 • TOPIC 5 • LESSON 5.6 | Guided example • Model and explain

Problem

Ethan swims 11 laps in 8 minutes. Austin swims 7 laps in 5 minutes. Who swims faster?

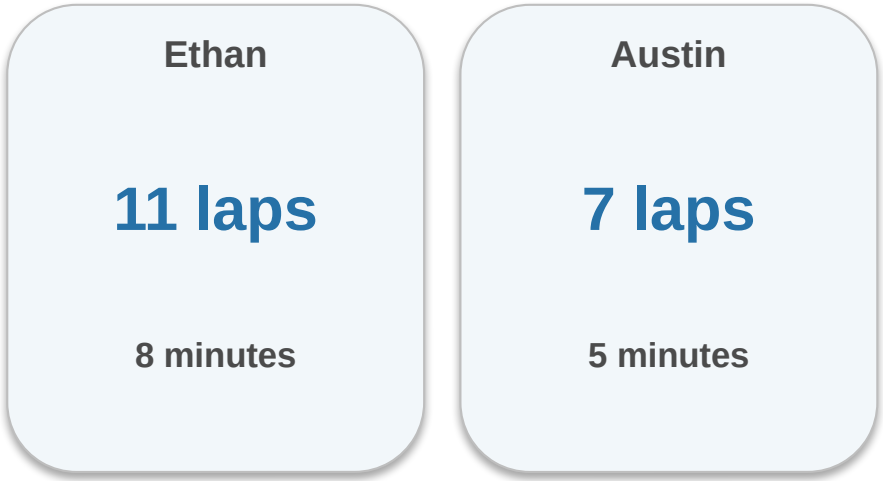
Worked solution

Ethan: 11 ÷ 8 = 1.375 laps/min.

Austin: 7 ÷ 5 = 1.4 laps/min.

1.4 > 1.375, so Austin swims faster.

Compare unit rates with the same units: lower cost or higher speed as appropriate.



Example 2 — Compare Unit Rates

Problem

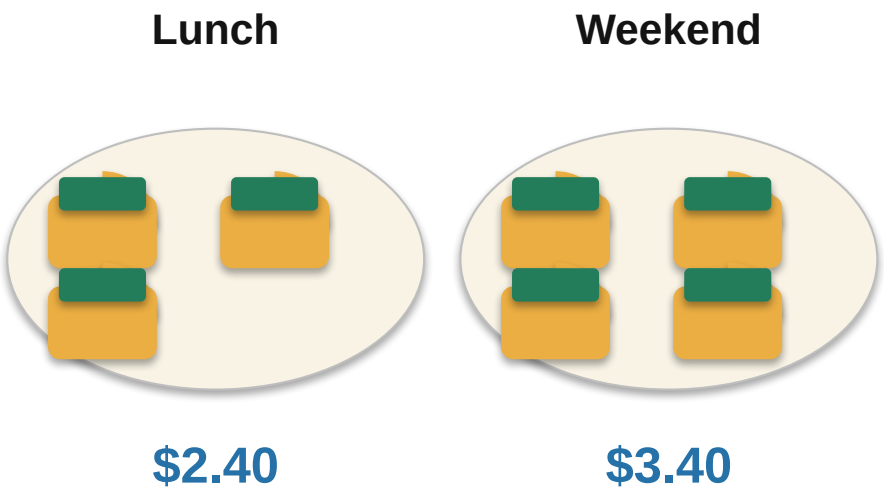
Lunch special: 3 tacos for $2.40. Weekend special: 4 tacos for $3.40. Which is the better value?

Worked solution

Lunch: $2.40 ÷ 3 = $0.80/taco.

Weekend: $3.40 ÷ 4 = $0.85/taco.

$0.80 < $0.85, so lunch is the better value.



Compare unit rates with the same units: lower cost or higher speed as appropriate.

Individual Work

GRADE 6 • TOPIC 5 • LESSON 5.6 | 10 minutes total • 10 points

Complete all five tasks. Show your reasoning.

8. (p. 303) 9 pens cost $3.60. Find the unit price.

9. (p. 303) 15 ounces cost $2.25. Find the cost per ounce.

10. (p. 303) Compare 3 kg for $7.95 and 5 kg for $12.50. Which is the better value?

Individual Work — continued

GRADE 6 • TOPIC 5 • LESSON 5.6 | 10 minutes total • 10 points

Finish the remaining problems. Check your work.

11. (p. 303) Compare 50 envelopes for $2.49 and 90 for $5.50. Which is cheaper per envelope?

12. (p. 303) Compare 35 points in 20 min and 49 points in 35 min. Which rate is greater?

Individual Work — Answer Key

Compare unit rates with the same units: lower cost or higher speed as appropriate.

8. (p. 303)

$3.60 ÷ 9 = $0.40 per pen.

9. (p. 303)

$2.25 ÷ 15 = $0.15 per ounce.

10. (p. 303)

$\frac{\$7.95}{3}$ = $2.65/kg; $\frac{\$12.50}{5}$ = $2.50/kg. 5 kg is better value.

11. (p. 303)

$\frac{\$2.49}{50}$ = $0.0498 each; $\frac{\$5.50}{90}$ ≈ $0.0611 each. 50-envelope option.

12. (p. 303)

$\frac{35}{20}$ = 1.75 points/min; $\frac{49}{35}$ = 1.4 points/min. First rate is greater.

Group Work

GRADE 6 • TOPIC 5 • LESSON 5.6 | 8 minutes total • 10 points

Work together. Each person must contribute a solution.

19. (p. 304) 270 texts in 45 min. How many additional minutes for 90 more texts?

20. (p. 304) Half a gallon costs $2.29; one gallon costs $3.99. Which has the better unit price?

Group Work — continued

Agree on a solution and be ready to explain it.

21. (p. 304) Amil rode 15 mi in 55 min. Abe rode for 77 min at a faster rate. Find Amil's unit rate and give a possible unit rate for Abe.

22. (p. 304) Soup: 12 cans for $10.56, 16 for $13.60, 20 for $17.20, or 24 for $21.36. Find all four unit prices and identify the best value.

Group Work — Answer Key

Compare unit rates with the same units: lower cost or higher speed as appropriate.

19. (p. 304)

$\frac{270}{45}$ = 6 texts/min. 90 ÷ 6 = 15 more minutes.

20. (p. 304)

Half gallon \$2.29 → \$4.58 per gallon; 1 gallon costs \$3.99. Buy the gallon for better unit price.

21. (p. 304)

Amil: $\frac{15}{55} = \frac{3}{11} \approx 0.273$ mi/min. Abe is faster, so > 0.273 mi/min; e.g., 22 miles in 77 min is $\frac{2}{7} \approx 0.286$.

22. (p. 304)

Divide price by can count: $\frac{10.56}{12}$ = \$0.88; $\frac{13.60}{16}$ = \$0.85; $\frac{17.20}{20}$ = \$0.86; $\frac{21.36}{24}$ = \$0.89. Choose 16 cans (lowest cost per can).

Exit Ticket

GRADE 6 • TOPIC 5 • LESSON 5.6 | 2 minutes • Independent check

Before you leave, solve this problem.

A 10-pack costs $4.80; a 15-pack costs $6.75. Which is cheaper per item?

Show your work.

Write the answer with the correct units or graph, if needed.