

6.17 Unit Review

Unit 6: Ratios, Rates, and Proportional Reasoning

Name: _____

Date: _____

Class/Period: _____

Problem 6.237 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Write the ratio of 14 red tiles to 21 blue tiles in simplest form.

Problem 6.238 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

A collection has 5 circles and 8 squares. Write circles:total.

Problem 6.239 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

If cats:dogs = 4 : 7, what fraction of the animals are cats?

6.17 Unit Review

Unit 6: Ratios, Rates, and Proportional Reasoning

Problem 6.240 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Simplify $54 : 81$.

Problem 6.241 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Simplify $\frac{3}{5} : \frac{7}{10}$.

Problem 6.242 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Simplify $1.2 : 0.45$.

6.17 Unit Review

Unit 6: Ratios, Rates, and Proportional Reasoning

Problem 6.243 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Simplify $2 \text{ yd} : 48 \text{ in.}$

Problem 6.244 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Write a three-part ratio equivalent to $4 : 6 : 10$ in simplest form.

Problem 6.245 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Explain why $3 : 8$ does not mean $\frac{3}{8}$ of the whole.

6.17 Unit Review

Unit 6: Ratios, Rates, and Proportional Reasoning

Problem 6.246 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

If $A : B = 3 : 8$ and $A = 21$, find B .

Problem 6.247 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

If red:blue = 5 : 7 and total is 96, find red.

Problem 6.248 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Two numbers have ratio 4 : 9 and sum 117. Find them.

6.17 Unit Review

Unit 6: Ratios, Rates, and Proportional Reasoning

Problem 6.249 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Two numbers have ratio $11 : 6$ and difference 35. Find them.

Problem 6.250 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

$A:B:C = 2 : 5 : 3$ and total is 80. Find B .

Problem 6.251 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

$A:B:C = 4 : 1 : 7$ and $C = 56$. Find total.

6.17 Unit Review

Unit 6: Ratios, Rates, and Proportional Reasoning

Problem 6.252 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

A rectangle has width:height = 3 : 2 and perimeter 70. Find area.

Problem 6.253 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

A team has wins:losses = 7 : 3 and 32 more wins. Find total games.

Problem 6.254 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Explain how one ratio part is found when the total is known.

6.17 Unit Review

Unit 6: Ratios, Rates, and Proportional Reasoning

Problem 6.255 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Complete $5 : 12 = 20 : x$.

Problem 6.256 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Complete $7 : 9 = x : 45$.

Problem 6.257 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Test whether $(3, 8), (9, 24), (15, 41)$ is proportional.

6.17 Unit Review

Unit 6: Ratios, Rates, and Proportional Reasoning

Problem 6.258 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Find k for $(x, y) = (12, 33)$.

Problem 6.259 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Write an equation for $(2, 7)$, $(6, 21)$, $(10, 35)$.

Problem 6.260 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Complete a table for $y = 2.5x$ at $x = 0, 4, 10$.

6.17 Unit Review

Unit 6: Ratios, Rates, and Proportional Reasoning

Problem 6.261 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Find the missing pair with ratio 3 : 8 and sum 77.

Problem 6.262 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Explain why adding 4 to both terms does not preserve a ratio.

Problem 6.263 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Create four integer columns for $y = \frac{3}{4}x$.

6.17 Unit Review

Unit 6: Ratios, Rates, and Proportional Reasoning

Problem 6.264 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Is $y = 6x$ proportional? State k .

Problem 6.265 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Is $y = 6x + 2$ proportional? Explain.

Problem 6.266 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

A proportional graph contains $(5, 22)$. Find the equation.

6.17 Unit Review

Unit 6: Ratios, Rates, and Proportional Reasoning

Problem 6.267 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Find y when $y = 1.8x$ and $x = 35$.

Problem 6.268 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Find x when $y = \frac{7}{3}x$ and $y = 42$.

Problem 6.269 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Interpret $k = 12$ in a pages-versus-minutes graph.

6.17 Unit Review

Unit 6: Ratios, Rates, and Proportional Reasoning

Problem 6.270 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

How many integer points on $y = \frac{2}{5}x$ have $0 \leq x \leq 20$?

Problem 6.271 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Explain why a proportional graph contains $(0, 0)$.

Problem 6.272 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Give a nonproportional context with a constant rate.

6.17 Unit Review

Unit 6: Ratios, Rates, and Proportional Reasoning

Problem 6.273 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Solve $\frac{4}{7} = \frac{x}{35}$.

Problem 6.274 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Solve $\frac{18}{x} = \frac{6}{11}$.

Problem 6.275 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Solve $\frac{x}{27} = \frac{5}{9}$.

6.17 Unit Review

Unit 6: Ratios, Rates, and Proportional Reasoning

Problem 6.276 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Solve $\frac{x-3}{12} = \frac{5}{8}$.

Problem 6.277 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Solve $\frac{7}{x+2} = \frac{1}{3}$.

Problem 6.278 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Check whether $x = 24$ solves $\frac{x}{36} = \frac{2}{3}$.

6.17 Unit Review

Unit 6: Ratios, Rates, and Proportional Reasoning

Problem 6.279 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

A recipe uses 5 cups of flour for 8 batches. Write a proportion and find the amount of flour needed for 14 batches.

Problem 6.280 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Explain why cross products work.

Problem 6.281 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Find the error in $\frac{3}{x} = \frac{5}{20} \Rightarrow 3x = 100$.

6.17 Unit Review

Unit 6: Ratios, Rates, and Proportional Reasoning

Problem 6.282 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Solve $\frac{5}{8} = \frac{x}{7}$ and write the terminating decimal.

Problem 6.283 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Solve $\frac{7}{12} = \frac{x}{10}$ and give an exact fraction.

Problem 6.284 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Solve $\frac{4.5}{x} = \frac{6}{11}$.

6.17 Unit Review

Unit 6: Ratios, Rates, and Proportional Reasoning

Problem 6.285 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Solve $\frac{x-1.5}{4} = \frac{3}{10}$.

Problem 6.286 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Explain why $20/3$ should not be reported as 6.67 unless rounding is requested.

Problem 6.287 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Create a proportion with solution 2.75.

6.17 Unit Review

Unit 6: Ratios, Rates, and Proportional Reasoning

Problem 6.288 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

A side 6 corresponds to 15. Find the scale factor.

Problem 6.289 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Scale sides 4, 7, 9 by factor $\frac{3}{2}$.

Problem 6.290 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

A perimeter 48 scales by $\frac{5}{4}$. Find the new perimeter.

6.17 Unit Review

Unit 6: Ratios, Rates, and Proportional Reasoning

Problem 6.291 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

An area 32 scales by length factor 3. Find the new area.

Problem 6.292 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Combine $A : B = 2 : 3$ and $B : C = 4 : 5$.

Problem 6.293 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

$A:B:C = 3 : 4 : 5$ and total is 144. Find C .

6.17 Unit Review

Unit 6: Ratios, Rates, and Proportional Reasoning

Problem 6.294 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

$A:B = 5 : 7$, $B:C = 14 : 9$. Find $A:B:C$.

Problem 6.295 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

A map scale is 1 cm:18 km. Find actual distance for 6.5 cm.

Problem 6.296 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Explain why area scale factor is squared.

6.17 Unit Review

Unit 6: Ratios, Rates, and Proportional Reasoning

Problem 6.297 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Find dollars per pound: \$17.50 for 7 pounds.

Problem 6.298 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Find pages per minute: 420 pages in 14 minutes.

Problem 6.299 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Find distance at 48 mph for 3.5 hours.

6.17 Unit Review

Unit 6: Ratios, Rates, and Proportional Reasoning

Problem 6.300 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Find time for 225 miles at 75 mph.

Problem 6.301 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Find speed for 360 meters in 24 seconds.

Problem 6.302 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Six workers take 20 hours. Find time for 8 equal workers.

6.17 Unit Review

Unit 6: Ratios, Rates, and Proportional Reasoning

Problem 6.303 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

A job needs 450 worker-minutes. Find time for 15 workers.

Problem 6.304 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Find average speed: 120 miles in 2 h and 90 miles in 1.5 h.

Problem 6.305 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Explain why workers and time are inversely related for one fixed job.

6.17 Unit Review

Unit 6: Ratios, Rates, and Proportional Reasoning

Problem 6.306 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Convert 7.2 km to m.

Problem 6.307 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Convert 960 in to ft.

Problem 6.308 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Convert 2.5 h to min.

6.17 Unit Review

Unit 6: Ratios, Rates, and Proportional Reasoning

Problem 6.309 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Convert 5 m^2 to cm^2 .

Problem 6.310 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Convert 60 mph to miles per minute.

Problem 6.311 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Convert 90 km/h to m/s.

6.17 Unit Review

Unit 6: Ratios, Rates, and Proportional Reasoning

Problem 6.312 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Convert \$4.80 per pound to dollars per ounce.

Problem 6.313 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Write a conversion chain from centimeters to yards.

Problem 6.314 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Explain why conversion factors equal 1.

6.17 Unit Review

Unit 6: Ratios, Rates, and Proportional Reasoning

Problem 6.315 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

A mixture has red:blue:white = 3 : 5 : 7 and total volume 90 liters. It is bottled at 1.5 liters per bottle. Find the liters of each color and total bottles.

Problem 6.316 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

A map scale is 1 inch:24 miles. A 6.75-inch route is driven at 54 mph with a 20-minute stop. Find total elapsed time.

Problem 6.317 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

Eight workers make 640 parts in 5 hours. How many workers are needed to make 1,440 parts in 6 hours at the same rate?

6.17 Unit Review

Unit 6: Ratios, Rates, and Proportional Reasoning

Problem 6.318 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

A similar rectangle has length scale factor $\frac{5}{2}$. The smaller rectangle has perimeter 36 and area 72. Find the larger perimeter and area.

Problem 6.319 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

A car travels 180 miles at 45 mph, rests 30 minutes, then travels 210 miles at 70 mph. Find average speed including the rest.

Problem 6.320 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

A school has sixth:seventh:eighth graders = 5 : 6 : 7. It adds 18 sixth graders and 6 seventh graders, after which sixth and seventh grades have equal enrollment. Find the original total enrollment.

6.17 Unit Review

Unit 6: Ratios, Rates, and Proportional Reasoning

Problem 6.321 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

A drink mix uses concentrate:water = 3 : 8. Concentrate costs \$1.20 per liter and water costs \$0.04 per liter. Find the cost of 55 liters of mixture.

Problem 6.322 Directions:

The review begins with focused skills and moves into mixed reasoning. Show enough work to make the multiplicative structure clear, label units, and explain why your setup matches the situation. In proportions, match corresponding quantities first, then choose scaling, unit rates, or denominator clearing as appropriate.

A 1:25 scale model of a rectangular room measures 18 cm by 12 cm. Flooring costs \$32 per square meter. Find the actual flooring cost.