

ANSWER PRESENTATION TOOL

Green - Student Edition

5

Chapter Tes

1-20

ALL EVEN

Show Solu

ODD

1. The ratio of scooters to bikes is 3 to 3, or $3 : 3$. The ratio means that there are 3 scooters for every 3 bikes.

2. The ratio of starfish to seashells is 2 to 5, or $2 : 5$. The ratio means that there are 2 starfish for every 5 seashells.

3.

Lemons	4	12	36
Limes	2	6	18

$\times 3$ $\times 3$

$\times 3$ $\times 3$

The equivalent ratios are $4 : 2$, $12 : 6$, and $36 : 18$.

4.

		$\times 2$	$\times 3$
Rabbits	2	4	12
Hamsters	9	18	54
		$\times 2$	$\times 3$

The equivalent ratios are 2 : 9, 4 : 18, and 12 : 54.

5.

		$\div 3$
Cost (dollars)	54	18
Tickets	3	1
		$\div 3$

The unit rate is \$18 per ticket.

6.

		$\div 3$
Distance (miles)	210	70
Time (hours)	3	1
		$\div 3$

The unit rate is 70 miles per hour.

$$7. \frac{21}{25} = \frac{21 \times 4}{25 \times 4} = \frac{84}{100} = 84\%$$

$$8. \frac{17}{20} = \frac{17 \times 5}{20 \times 5} = \frac{85}{100} = 85\%$$

$$9. 1\frac{2}{5} = \frac{7}{5} = \frac{7 \times 20}{5 \times 20} = \frac{140}{100} = 140\%$$

$$10. \text{Sample answer: } 80\% \text{ of } 90 = \frac{4}{5} \times 90 = \frac{4 \times \overset{18}{\cancel{90}}}{\underset{1}{\cancel{5}}} = 72$$

So, 80% of 90 is 72.

Write the percent as a fraction. Then multiply by the whole to find the part. Simplify the result.

$$11. \text{Sample answer: } 30\% \text{ of } 50 = \frac{3}{10} \times 50 = \frac{3 \times \overset{5}{\cancel{50}}}{\underset{1}{\cancel{10}}} = 15$$

So, 30% of 50 is 15.

Write the percent as a fraction. Then multiply by the whole to find the part. Simplify the result.

12. Sample answer:

$$120\% \text{ of } 75 = \frac{120}{100} \times 75 = \frac{\overset{6}{\cancel{120}} \times \overset{15}{\cancel{75}}}{\underset{\cancel{100}}{1}} = 90$$

So, 120% of 75 is 90.

Write the percent as a fraction. Then multiply by the whole to find the part. Simplify the result.

13. Sample answer:

$$34 \div \frac{40}{100} = 34 \times \frac{100}{40} = \frac{\overset{17}{\cancel{34}} \times \overset{5}{\cancel{100}}}{\underset{\cancel{40}}{20}} = 85$$

So, 40% of 85 is 34.

Write the percent as a fraction. Then divide the part by the percent to find the whole. Simplify the result.

14. Sample answer:

$$52 \div \frac{130}{100} = 52 \times \frac{100}{130} = \frac{\overset{4}{\cancel{52}} \times \overset{10}{\cancel{100}}}{\underset{\cancel{130}}{10}} = 40$$

So, 130% of 40 is 52.

Write the percent as a fraction. Then divide the part by the percent to find the whole. Simplify the result.

$$15. 5 \cancel{\text{L}} \times \frac{1 \text{ qt}}{0.95 \cancel{\text{L}}} \approx 5.26 \text{ qt}$$

So, 5 L \approx 5.26 qt.

$$16. 56 \cancel{\text{lb}} \times \frac{0.45 \text{ kg}}{1 \cancel{\text{lb}}} \approx 25.2 \text{ kg}$$

So, 56 lb \approx 25.2 kg.

17. Soup A



		$\div 4$	$\times 18$
		\curvearrowright	\curvearrowright
Sodium (milligrams)	600	150	2700
Weight (ounces)	4	1	18
		\curvearrowleft	\curvearrowleft
		$\div 4$	$\times 18$

Soup B

		$\div 6$	$\times 18$
		\curvearrowright	\curvearrowright
Sodium (milligrams)	720	120	2160
Weight (ounces)	6	1	18
		\curvearrowleft	\curvearrowleft
		$\div 6$	$\times 18$



Soup A has 2700 milligrams of sodium in an 18-ounce bowl, which is more sodium than Soup B has at 2160 milligrams.

18. 48-fluid-ounce

		$\div 48$
		
Cost (dollars)	2.40	0.05
Volume (fluid ounces)	48	1
		
		$\div 48$

The unit rate is \$0.05 per fluid ounce.

60-fluid-ounce

		$\div 60$
		
Cost (dollars)	3.60	0.06
Volume (fluid ounces)	60	1
		
		$\div 60$

The unit rate is \$0.06 per fluid ounce.

The 48-fluid-ounce container of orange juice is the better buy because it has a smaller unit rate.

19. $46\% = \frac{46}{100} = \frac{23}{50}$

$\frac{23}{50}$ of the video is downloaded.

$$20. \quad 40\% \text{ of } 20 = \frac{2}{5} \times 20 = \frac{2 \times \overset{4}{\cancel{20}}}{\underset{1}{\cancel{5}}} = 8$$

So, 8 students are boys and $20 - 8 = 12$ students are girls.

$$25\% \text{ of } 8 = \frac{1}{4} \times 8 = 2$$

So, 2 boys wear glasses.

$$50\% \text{ of } 12 = \frac{1}{2} \times 12 = 6$$

So, 6 girls wear glasses.

A total of $2 + 6 = 8$ students wear glasses.