Computing the Fuel Needed

EXAMPLE Twanda is planning a 320 mile trip. Her car's EPA rating is 41 mpg on the highway. How many gallons of gas will she require for this trip? Round to the nearest gallon.

$$41\overline{)320.0} = 7.8 \sim 8$$

8 gallons needed for the trip

Miles

Twanda will need about 8 gallons of gas for this trip.

Directions Find the amount of fuel needed for each trip. Round your answer to the nearest gallon.

	Distance	Mileage Rating	Amount of Fuel
1.	253 miles	22 mpg	_____
2.	119 miles	25 mpg	_____
3.	610 miles	18 mpg	_____
4.	784 miles	32 mpg	_____
5.	223 miles	18 mpg	_____
6.	483 miles	25 mpg	_____
7.	2,194 miles	35 mpg	_____
8.	244 miles	33 mpg	_____
9.	632 miles	29 mpg	_____
10.	2,048 miles	38 mpg	_____
11.	653 miles	28 mpg	_____
12.	2,639 miles	26 mpg	_____
13.	877 miles	39 mpg	_____
14.	902 miles	44 mpg	_____
15.	1,763 miles	42 mpg	_____
16.	3,779 miles	31 mpg	_____
17.	3,992 miles	25 mpg	_____
18.	14,329 miles	41 mpg	_____
19.	296 miles	34 mpg	_____
20.	118 miles	14 mpg	_____

Computing Average Speed

EXAMPLE Arthur drives 157 miles in 4 hours and 16 minutes. Find his average rate of speed.

Step 1 Convert minutes to a decimal part of an hour by dividing by 60. Round to the nearest tenth of an hour

$$60\overline{)16.0} \quad .26 \text{ Hour} \sim 0.3 \text{ Hour}$$

Minutes

Step 2 Write the hours as a decimal number.

4 hours and 16 minutes =
4 hours + 0.3 hours = 4.3 hours

Step 3 Divide the miles by the hours

$$4.3\overline{)157.0} \quad 36.5 \sim 37 \text{ miles per hour}$$

Arthur's average rate of speed is 37 miles per hour.

Directions Find the average speed for these trips. Round your answer to the nearest mile per hour.

	Distance	Time	Average Speed
1.	92 miles	1 hours, 55 minutes	_____
2.	437 miles	10 hours, 15 minutes	_____
3.	906 miles	30 hours, 30 minutes	_____
4.	83 miles	1 hours, 47 minutes	_____
5.	143 miles	3 hours, 10 minutes	_____
6.	892 miles	25 hours, 15 minutes	_____
7.	3,445 miles	86 hours, 14 minutes	_____
8.	572 miles	14 hours, 35 minutes	_____
9.	998 miles	30 hours, 30 minutes	_____
10.	1,653 miles	34 hours, 55 minutes	_____
11.	285 miles	5 hours, 16 minutes	_____
12.	188 miles	4 hours, 12 minutes	_____
13.	621 miles	15 hours, 14 minutes	_____
14.	490 miles	9 hours, 30 minutes	_____
15.	1,477 miles	29 hours, 30 minutes	_____