Multiplication and Division Word Problems

1. A plane seats 480 people. If the plane is $\frac{3}{4}$ full, how many people are on the plane?

Answer:
$$480 \times \frac{3}{4} = \frac{480}{1} \times \frac{3}{4} = \frac{1440}{4} = 360$$
 people on the plane.

2. If a car travels 12.5 km on 1 litre of gas, how many litres of gas does it take to travel 100 km?

Answer:
$$100 \div 12.5 = 8 L$$

3. There are 30 people in a row at the movies. How many people are in $5\frac{1}{2}$ rows?

Answer:
$$30 \times 5\frac{1}{2} = \frac{30}{1} \times \frac{11}{2} = \frac{330}{2} = 165$$
 people at the movies.

4. The temperature drops 10.5° C over a 6 hour period. What was the hourly drop in temperature, assuming the temperature dropped the same amount each hour?

Answer:
$$10.5 \div 6 = 1.75$$
 °C drop per hour.

5. A room measures 2.3 m and 3.4 m. a). What is the area of the room?

Answer:
$$2.3 \times 3.4 = 7.82 \text{ m}^2$$

b). If carpet cost \$18.25/m², calculate the cost to carpet the room. (Exclude Taxes).

Answer:
$$7.82 \times 18.25 = $142.72$$

6. Suppose you find $\frac{1}{3}$ of a pizza in the fridge and you eat $\frac{1}{2}$ of it. What fraction of the whole pizza have you eaten?

Answer:
$$\frac{1}{3} \times \frac{1}{2} = \frac{1}{6}$$
 of the whole pizza

7. A tub contains 2.3 L of ice cream. It is shared equally among 5 people. How much will each person get?

Answer:
$$2.3 \div 5 = 0.46$$
 L of ice cream