Proportions 1

For problems 1 – 4, set up the proportion for each set of similar figures and solve for the missing length.

1. \[ \frac{8 \text{ in}}{6 \text{ in}} = \frac{x \text{ inches}}{18 \text{ inches}} \]

2. \[ \frac{9 \text{ feet}}{x \text{ feet}} = \frac{3 \text{ feet}}{2 \text{ feet}} \]

3. \[ \frac{12 \text{ yards}}{8 \text{ yards}} = \frac{x \text{ yards}}{6 \text{ yards}} \]

4. \[ \frac{8 \text{ cm}}{16 \text{ cm}} = \frac{x \text{ cm}}{2 \text{ cm}} \]
For problems 5 – 8, use the scale factor to find the missing lengths.

5. scale factor = \( \frac{2}{3} \)

6. scale factor = \( \frac{1}{2} \)

7. scale factor = \( \frac{3}{4} \)

8. scale factor = \( \frac{1}{4} \)
For problems 1 – 4, set up the proportion for each set of similar figures and solve for the missing length.

1. \[ \frac{8 \text{ inches}}{6 \text{ inches}} = \frac{24 \text{ inches}}{18 \text{ inches}} \]

2. \[ \frac{9 \text{ feet}}{13.5 \text{ feet}} = \frac{3 \text{ feet}}{2 \text{ feet}} \]

3. \[ \frac{12 \text{ yards}}{8 \text{ yards}} = \frac{4 \text{ yards}}{6 \text{ yards}} \]

4. \[ \frac{20 \text{ cm}}{8 \text{ cm}} = \frac{5 \text{ cm}}{2 \text{ cm}} \]
For problems 5 – 8, use the scale factor to find the missing lengths.

5. scale factor = \( \frac{2}{3} \)

6. scale factor = \( \frac{1}{2} \)

7. scale factor = \( \frac{3}{4} \)

8. scale factor = \( \frac{1}{4} \)