

1. $3\sqrt{5} \cdot 4\sqrt{10}$

$$\begin{aligned} & 12\sqrt{50} \\ & \quad \begin{array}{l} \nearrow 5 \quad \nearrow 10 \\ \nearrow 2 \quad \nearrow 5 \end{array} \\ & 12\sqrt{2(5 \cdot 5)} \\ & 60\sqrt{2} \end{aligned}$$

2. $-3\sqrt{7} \cdot 5\sqrt{21}$

$$\begin{aligned} & -15\sqrt{147} \\ & -15\sqrt{3 \cdot (7 \cdot 7)} \\ & -105\sqrt{3} \end{aligned}$$

Homework Check:

1. 18 cm

2. 12 cm

3. 21 cm

4. 15 cm

5. 2.0 cm

6. 28

7. 16 cm

8. 60 cm

9. $4\frac{4}{9}$ cm

10. $\frac{a}{b} = \frac{p}{q}, \frac{a}{p} = \frac{b}{q}$

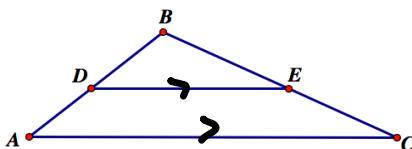
17. $AB = 3$ cm, $BC = 7.5$ cm

7.5 - Proportional Segments in parallel lines

7.5 Computer Investigation

Parallel/Proportionality Conjecture: If a line parallel to one side of a triangle passes through the other two sides, then it divides the other two sides proportionally. Conversely, if a line cuts two sides of a triangle proportionally, then it is parallel to the third side.

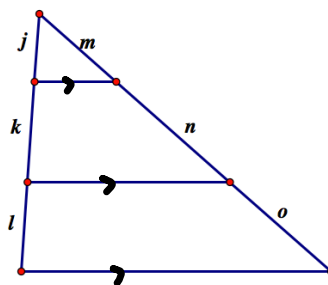
$$\frac{BD}{DA} = \frac{BE}{EC}$$



Extended Parallel/Proportionality Conjecture: If two or more lines pass through two sides of a triangle parallel to the third side, then they divide the two sides proportionally.

$$\frac{j}{k} = \frac{m}{n} \quad \frac{j}{l} = \frac{m}{o}$$

$$\frac{k}{l} = \frac{n}{o}$$



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