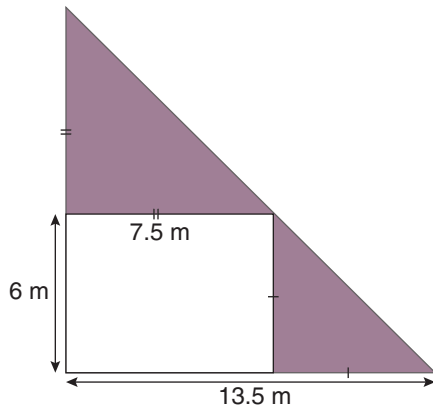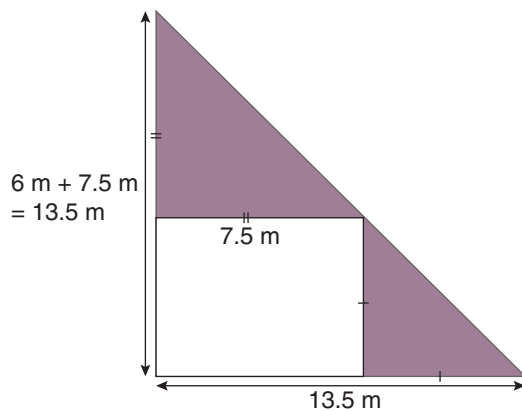## Check Up

Determine the area, to the nearest tenth, of the shaded region in the diagram provided.

7.5 m

6 m

13.5 m

✔ Compare your answers.

Determine the area, to the nearest tenth, of the shaded region in the diagram provided.

6 m + 7.5 m
= 13.5 m

7.5 m

13.5 m

The height of the triangle is
6 m + 7.5 m.

The formula for the area of the shaded region is
Shaded region = area of triangle – area of rectangle

$$SR = \frac{bh}{2} - lw$$

$$SR = \frac{(13.5 \text{ m} \cdot 13.5 \text{ m})}{2} - (7.5 \text{ m} \cdot 6 \text{ m})$$

$$SR = 91.125 \text{ m}^2 - 45 \text{ m}^2$$

$$SR \doteq 46.1 \text{ m}^2$$

An alternate method of determining the shaded region is
Shaded region = area of top of triangle +
area of bottom triangle

$$SR = \frac{bh}{2} + \frac{bh}{2}$$

$$SR = \frac{(7.5 \text{ m} \cdot 7.5 \text{ m})}{2} + \frac{(6 \text{ m} \cdot 6 \text{ m})}{2}$$

$$SR = 28.125 \text{ m}^2 + 18 \text{ m}^2$$

$$SR \doteq 46.1 \text{ m}^2$$