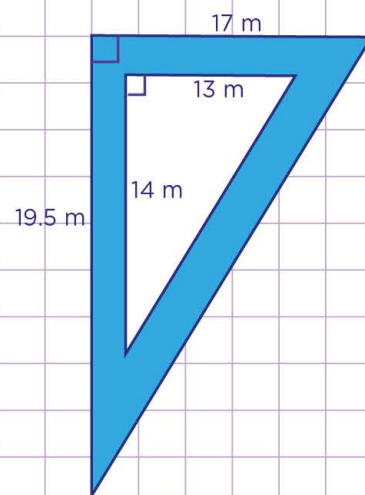
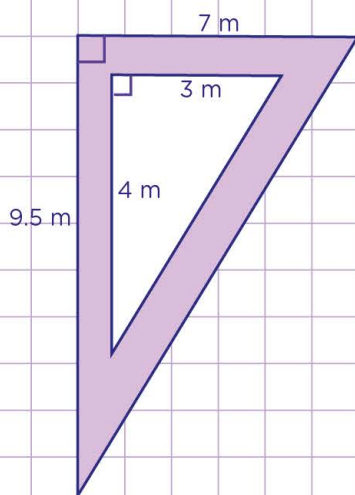
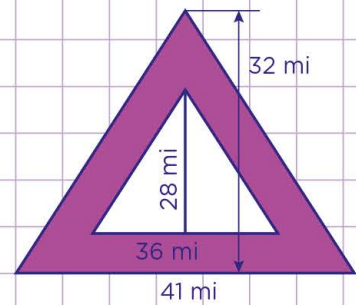
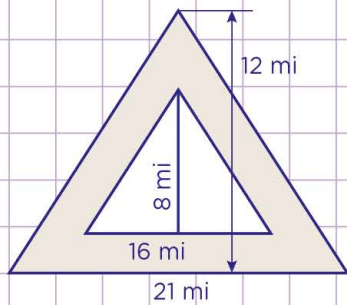
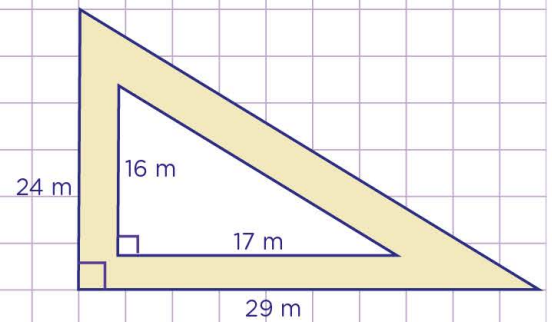
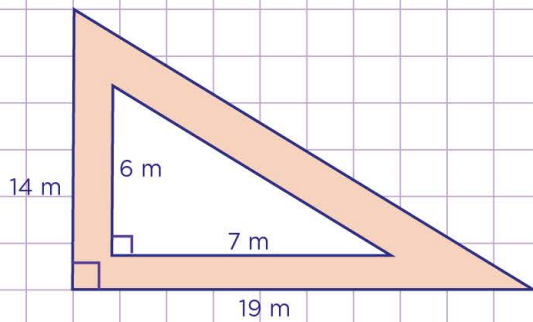


Name: Class:

Area between two triangles

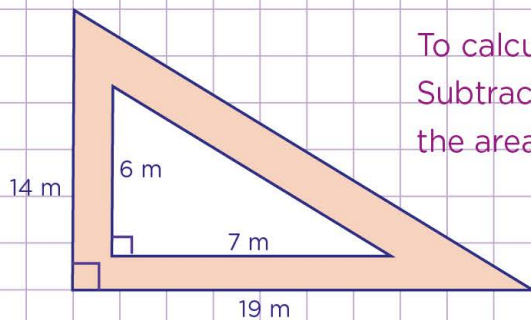
Given the triangles below, find the area of the shaded regions.



Name: Class:

Area between two triangles

Given the triangles below, find the area of the shaded regions.



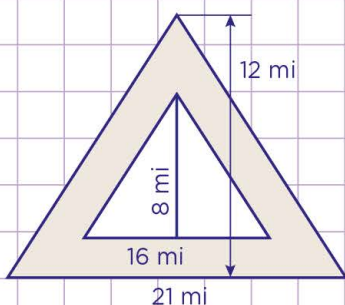
To calculate the area of the shaded region,
Subtract the area of the inner shape from
the area of the outer shape.

$$\begin{aligned}\text{Area of inner triangle} &= \frac{1}{2} b \times h \\ b &= 7 \text{ m} \\ h &= 6 \text{ m} \\ \text{Area} &= \frac{1}{2} \times 7 \text{ m} \times 6 \text{ m} \\ &= 21 \text{ m}^2\end{aligned}$$

$$\begin{aligned}\text{Area of outer triangle} &= \frac{1}{2} b \times h \\ b &= 19 \text{ m} \\ h &= 14 \text{ m} \\ \text{Area} &= \frac{1}{2} \times 19 \text{ m} \times 14 \text{ m} \\ &= 133 \text{ m}^2\end{aligned}$$

$$\begin{aligned}\text{So, area of shaded region} &= 133 \text{ m}^2 - 21 \text{ m}^2 \\ &= 112 \text{ m}^2\end{aligned}$$

So, the area of the shaded region is 112 m².



To calculate the area of the shaded region,
Subtract the area of the inner shape from
the area of the outer shape.

$$\begin{aligned}\text{Area of inner triangle} &= \frac{1}{2} b \times h \\ b &= 16 \text{ mi} \\ h &= 8 \text{ mi} \\ \text{Area} &= \frac{1}{2} \times 16 \text{ mi} \times 8 \text{ mi} \\ &= 64 \text{ mi}^2\end{aligned}$$

$$\begin{aligned}\text{Area of outer triangle} &= \frac{1}{2} b \times h \\ b &= 21 \text{ mi} \\ h &= 12 \text{ mi} \\ \text{Area} &= \frac{1}{2} \times 21 \text{ mi} \times 12 \text{ mi} \\ &= 126 \text{ mi}^2\end{aligned}$$

$$\begin{aligned}\text{So, area of shaded region} &= 126 \text{ mi}^2 - 64 \text{ mi}^2 \\ &= 62 \text{ mi}^2\end{aligned}$$

So, the area of the shaded region is 62 mi².