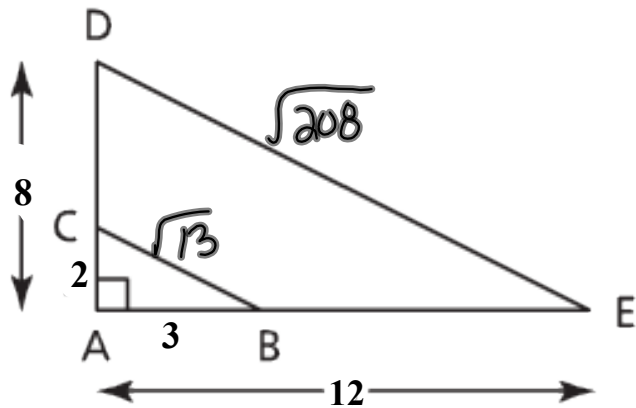


Use the diagram to explain that $\sqrt{208} = 4\sqrt{13}$



Similar Triangles

$\triangle ABC$ $\triangle ADE$

ADE is **4 times greater** than ABC

$\triangle ABC$

$$c^2 = a^2 + b^2$$

$$c^2 = 3^2 + 2^2$$

$$c^2 = 9 + 4$$

$$c^2 = 13$$

$$c = \sqrt{13}$$

$\triangle ADE$

$$c^2 = a^2 + b^2$$

$$c^2 = 8^2 + 12^2$$

$$c^2 = 64 + 144$$

$$c^2 = 208$$

$$c = \sqrt{208}$$

Therefore $4\sqrt{13} = \sqrt{208}$