

### ACTION

#### Revision Material



[http://corbettmaths.com/contents/Video 305-308](http://corbettmaths.com/contents/Video%20305-308)

### RESPONSE

Simplify fully

- $\sqrt{20}$
- $\frac{\sqrt{108}}{\sqrt{3}}$
- $\frac{5\sqrt{72}}{3}$
- $\sqrt{8} \times 2\sqrt{18}$
- $\sqrt{20} + \sqrt{45}$
- $\sqrt{63} - \sqrt{28}$
- $-\sqrt{200} - \sqrt{32}$

Rationalise the denominators

- $\frac{1}{\sqrt{6}}$
- $\frac{8}{\sqrt{2}}$
- $\frac{7}{3+\sqrt{2}}$

Expand and simplify fully

- $(\sqrt{3} + \sqrt{6})(\sqrt{3} - \sqrt{6})$
- $(7 + \sqrt{8})(3 - \sqrt{2})$
- $(\sqrt{5} + \sqrt{2})^2 - (\sqrt{5} - \sqrt{2})^2$

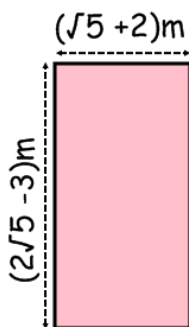
#### Fluency



#### Reasoning



Calculate the area and perimeter of the rectangle, giving your answers in their simplest form.



Here are the first 4 terms of a geometric sequence  $-2\sqrt{r}, 4r, -8r\sqrt{r}, 16r^2$

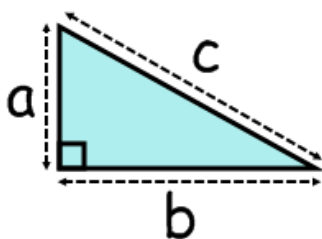
Work out the 7<sup>th</sup> term.

If  $r=12$ , what is the sum of the first 3 terms? Give your answer in its simplest form,  $a+b\sqrt{c}$ , where  $a, b,$  and  $c$  are integers.

#### Problem Solving

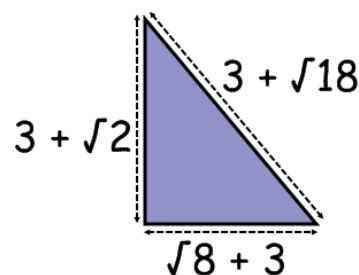


Pythagoras' Theorem states that for all right-angled triangles,



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

Is this a right-angled triangle?



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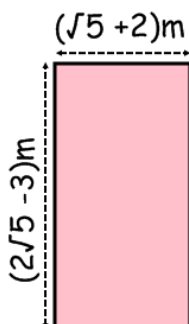
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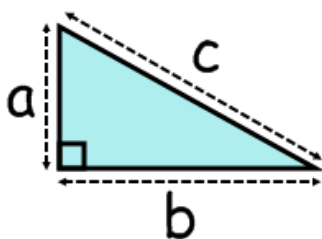
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