

Subtract two surds where you need to simplify

Maths

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Subtract two surds where you need to simplify

1. Simplify.

a) $\sqrt{8}$

b) $\sqrt{12}$

c) $\sqrt{50}$

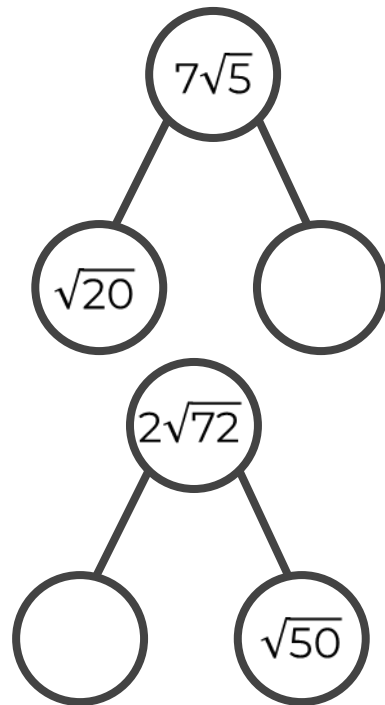
2. Simplify fully.

a) $5\sqrt{2} - \sqrt{8}$

b) $\sqrt{48} - \sqrt{12}$

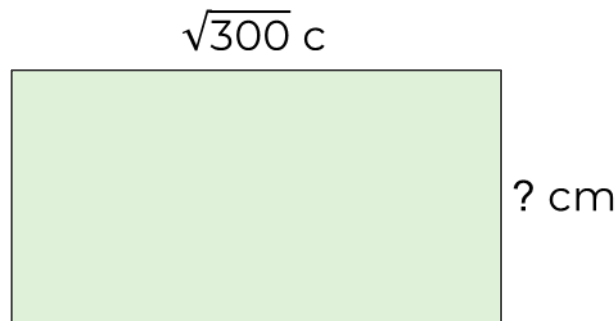
c) $\sqrt{50} - \sqrt{32}$

3. Complete the missing numbers in these part whole models.



Subtract two surds where you need to simplify

4. The width of a rectangle is $\sqrt{108}$ cm shorter than its length.



Work out the width of the rectangle.

5. Here are 4 number cards.

$$\sqrt{200}$$

$$\sqrt{100}$$

$$\sqrt{180}$$

$$\sqrt{8}$$

- a) Which card will simplify to $6\sqrt{5}$?
- b) Which card is not a surd?
- c) Work out the range for the cards.



Answers



Subtract two surds where you need to simplify

1. Simplify.

a) $\sqrt{8} = 2\sqrt{2}$

b) $\sqrt{12} = 2\sqrt{3}$

c) $\sqrt{50} = 5\sqrt{2}$

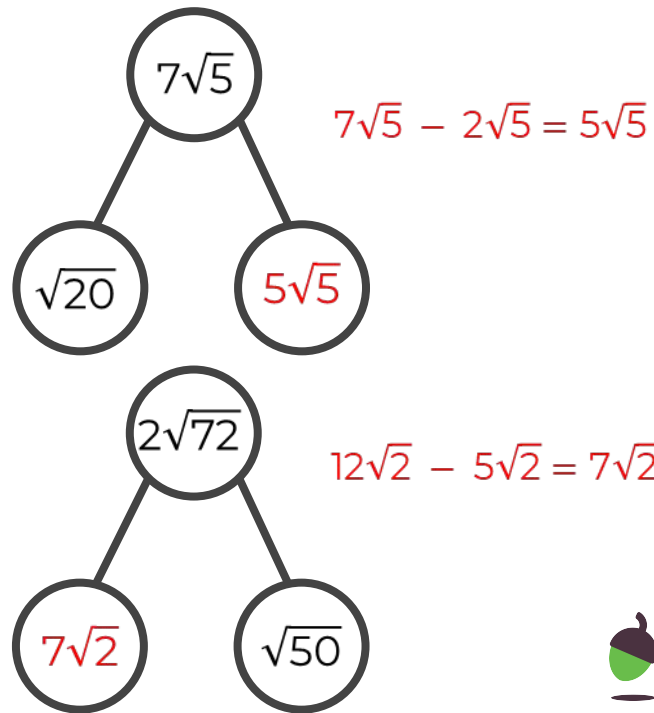
2. Simplify fully.

a) $5\sqrt{2} - \sqrt{8} = 5\sqrt{2} - 2\sqrt{2} = 3\sqrt{2}$

b) $\sqrt{48} - \sqrt{12} = 4\sqrt{3} - 2\sqrt{3} = 2\sqrt{3}$

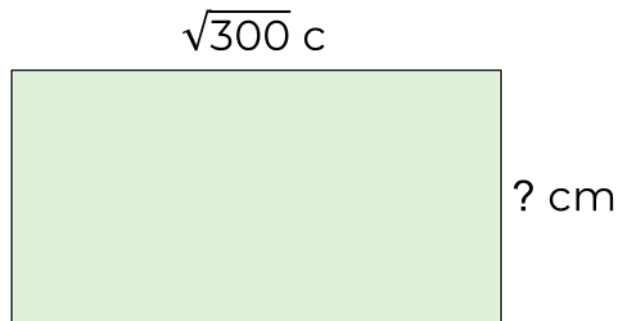
c) $\sqrt{50} - \sqrt{32} = 5\sqrt{2} - 4\sqrt{2} = \sqrt{2}$

2. Complete the missing numbers in these part whole models.



Subtract two surds where you need to simplify

3. The width of a rectangle is $\sqrt{108}$ cm shorter than its length.



Work out the width of the rectangle.

$$\sqrt{300} - \sqrt{108} = 10\sqrt{3} - 6\sqrt{3} = 4\sqrt{3} \text{ cm}$$

4. Here are 4 number cards.

$$\sqrt{200}$$

$$\sqrt{100}$$

$$\sqrt{180}$$

$$\sqrt{8}$$

- a) Which card will simplify to $6\sqrt{5}$? $\sqrt{180}$
- b) Which card is not a surd? $\sqrt{100}$
- c) Work out the range for the cards $8\sqrt{2}$

