

Dividing surds (1)

Maths - Dividing and rationalising surds

Mr Lund



Dividing Surds (1)

1. State whether each is true or false.

a) $\sqrt{10} \div \sqrt{5} = \sqrt{5}$

b) $\sqrt{5} \div \sqrt{5} = 1$

c) $\sqrt{9} \div \sqrt{3} = 3\sqrt{3}$

d) $\sqrt{18} \div \sqrt{9} = \sqrt{2}$

e) $\sqrt{72} \div \sqrt{8} = 3$

Write the correct answer for any false statements.

2. Simplify.

a) $\sqrt{14} \div \sqrt{7}$

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

c) $\sqrt{48} \div 2\sqrt{3}$

d) $\sqrt{12} \div \sqrt{2}$

e) $2\sqrt{3} \div \sqrt{2} \div \sqrt{2}$

f) $\sqrt[3]{12} \div \sqrt[3]{2}$



Dividing Surds (1)

3. Simplify

a) $\frac{\sqrt{12}}{\sqrt{2}}$

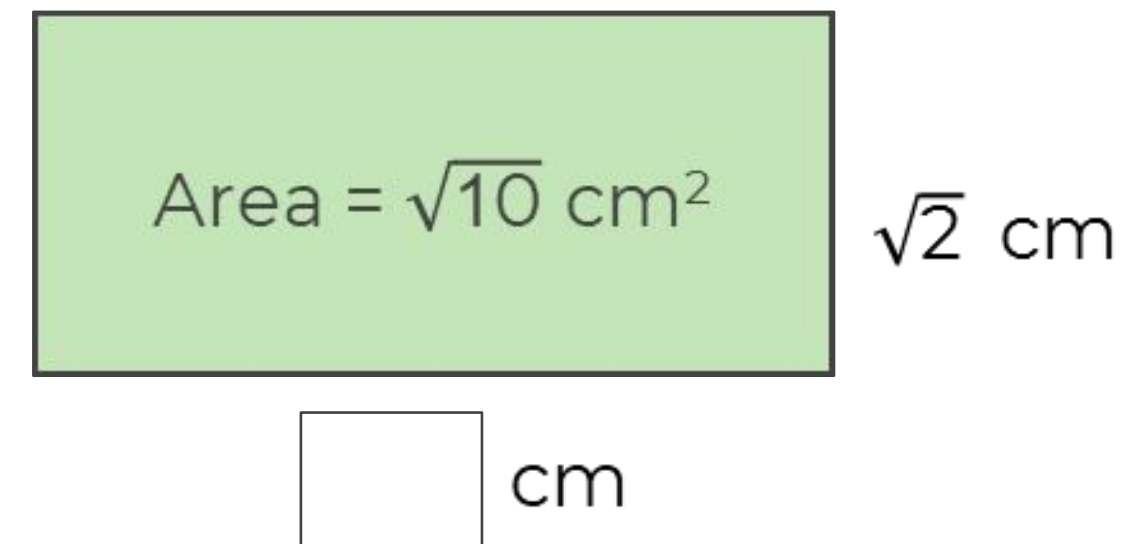
b) $\frac{\sqrt{24}}{\sqrt{2}}$

c) $\frac{\sqrt{12}}{\sqrt{3}}$

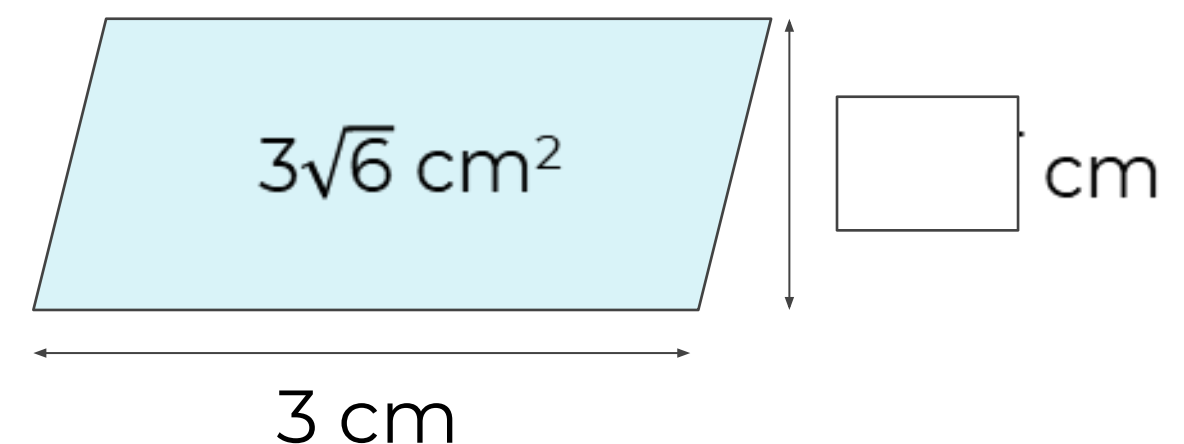
d) $\frac{\sqrt[3]{12}}{\sqrt[3]{3}}$

e) Fill in the blanks $\frac{\boxed{}}{\sqrt{3}} = \sqrt{8} = \boxed{}\sqrt{2}$

4. Find the missing length.



5. Work out the missing height.



Answers



Dividing Surds (1)

1. State whether each is true or false.

a) $\sqrt{10} \div \sqrt{5} = \sqrt{5}$ **F** $\sqrt{2}$

b) $\sqrt{5} \div \sqrt{5} = 1$ **T**

c) $\sqrt{9} \div \sqrt{3} = 3\sqrt{3}$ **F** $\sqrt{3}$

d) $\sqrt{18} \div \sqrt{9} = \sqrt{2}$ **T**

e) $\sqrt{72} \div \sqrt{8} = 3$ **T**

Write the correct answer for any false statements.

2. Simplify

a) $\sqrt{14} \div \sqrt{7} = \sqrt{2}$

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

c) $\sqrt{48} \div \sqrt{3} = 4$

d) $\sqrt{12} \div \sqrt{2} = \sqrt{6}$

e) $2\sqrt{3} \div \sqrt{2} \div \sqrt{2} = \sqrt{3}$

f) $\sqrt[3]{12} \div \sqrt[3]{2} = \sqrt[3]{6}$



Dividing Surds (1)

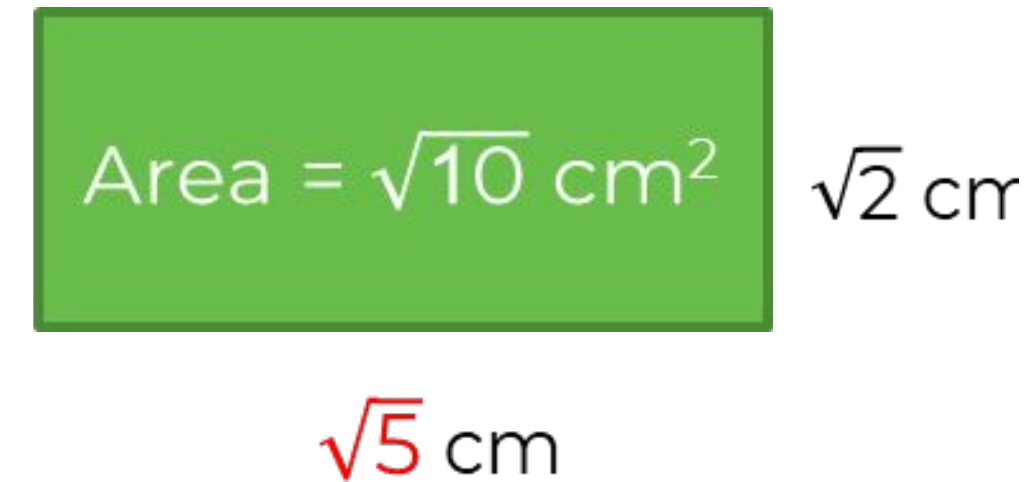
3. Simplify

a) $\frac{\sqrt{12}}{\sqrt{2}} = \sqrt{6}$ b) $\frac{\sqrt{24}}{\sqrt{2}} = \sqrt{12} = 2\sqrt{3}$

c) $\frac{\sqrt{12}}{\sqrt{3}} = \sqrt{4} = 2$ d) $\frac{\sqrt[3]{12}}{\sqrt[3]{3}} = \sqrt[3]{4}$

e) Fill in the blanks $\frac{\sqrt{24}}{\sqrt{3}} = \sqrt{8} = 2\sqrt{2}$

4. Find the missing side:



5. Work out the missing height.

