

Year Ten Number System Homework Sheet 2 2016

Name: _____

Due Date: Tuesday 16th Feb

1. For each of the following state whether they are rational or irrational.

a) $\sqrt{2}$

b) 0.924

c) $-\sqrt{25}$

d) 3.656565...

2. Simplify the following surds

a) $2\sqrt{3} \times \sqrt{3}$

b) $2\sqrt{3} \times 3\sqrt{2}$

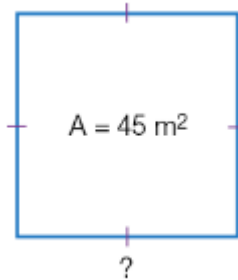
c) $\sqrt{\frac{81}{16}}$

d) $\frac{3\sqrt{8}}{\sqrt{200}}$

e) $\frac{12\sqrt{40}}{3\sqrt{5}}$

f) $18\sqrt{48} \div 3\sqrt{8}$

3. What is the side length of a square with an area of 45 m^2 ?



4. Rationalise the denominator

a) $\frac{3\sqrt{5}}{\sqrt{6}}$

b) $\frac{2}{2\sqrt{7} + 5}$

5. Show all working out and simplify where possible

a) $\frac{2}{7} + \frac{3}{9}$

b) $2\frac{3}{5} - 1\frac{5}{6}$

c) $\frac{2}{5} \times \frac{6}{11}$

d) $1\frac{1}{7} \div \frac{9}{14}$