



Name: _____



Rationalise the following fractions:

$$\text{a) } \frac{2}{\sqrt{5}} \quad \frac{2\sqrt{5}}{5}$$

$$\text{e) } \frac{4}{2\sqrt{3}} \quad \frac{2\sqrt{3}}{5}$$

$$\text{i) } \frac{\sqrt{6}}{5\sqrt{3}} \quad \frac{\sqrt{2}}{5}$$

$$\text{b) } \frac{4}{\sqrt{7}} \quad \frac{4\sqrt{7}}{7}$$

$$\text{f) } \frac{4}{3\sqrt{3}} \quad \frac{4\sqrt{3}}{9}$$

$$\text{j) } \frac{2\sqrt{7}}{\sqrt{5}} \quad \frac{2\sqrt{35}}{5}$$

$$\text{c) } \frac{3}{\sqrt{2}} \quad \frac{3\sqrt{2}}{2}$$

$$\text{g) } \frac{8}{3\sqrt{6}} \quad \frac{4\sqrt{6}}{9}$$

$$\text{k) } \frac{7\sqrt{5}}{4\sqrt{7}} \quad \frac{\sqrt{35}}{4}$$

$$\text{d) } \frac{15}{\sqrt{7}} \quad \frac{15\sqrt{7}}{7}$$

$$\text{h) } \frac{12}{5\sqrt{3}} \quad \frac{4\sqrt{3}}{5}$$

$$\text{l) } \frac{5+\sqrt{5}}{\sqrt{10}} \quad \frac{\sqrt{10} + \sqrt{2}}{2}$$

Rationalise the following fractions:

$$\text{a) } \frac{1}{2+\sqrt{5}} \quad -2 + \sqrt{5}$$

$$\text{d) } \frac{1}{5-\sqrt{3}} \quad \frac{5 + \sqrt{3}}{22}$$

$$\text{g) } \frac{6\sqrt{3}}{12-\sqrt{3}} \quad \frac{6 + 24\sqrt{3}}{47}$$

$$\text{b) } \frac{2}{5+\sqrt{3}} \quad \frac{5 - \sqrt{3}}{11}$$

$$\text{e) } \frac{\sqrt{3}}{7+\sqrt{3}} \quad \frac{7\sqrt{3} - 3}{46}$$

$$\text{h) } \frac{9\sqrt{2}}{3+\sqrt{2}} \quad \frac{27\sqrt{2} - 18}{7}$$

$$\text{c) } \frac{7}{1+\sqrt{3}} \quad \frac{7\sqrt{3} - 7}{2}$$

$$\text{f) } \frac{\sqrt{5}}{8-\sqrt{5}} \quad \frac{8\sqrt{5} + 5}{59}$$

$$\text{h) } \frac{10\sqrt{2}}{20+5\sqrt{2}} \quad \frac{4\sqrt{2} - 2}{7}$$

Exam question:

Rationalise the denominator and simplify $\frac{8}{12\sqrt{5}}$

$$\frac{2\sqrt{5}}{15}$$

