

M20 Principles C3 – Discovery Activity Dividing Radicals

If these are true and these are false.

$$\frac{\sqrt{10}}{\sqrt{2}} = \sqrt{5}$$

$$\frac{\sqrt{10}}{\sqrt{2}} = \sqrt{8}$$

$$\frac{12\sqrt{6}}{3\sqrt{3}} = 4\sqrt{2}$$

$$\frac{12\sqrt{6}}{3\sqrt{3}} = 9\sqrt{3}$$

$$\frac{\sqrt{24}}{2\sqrt{3}} = \frac{\sqrt{8}}{2} = \frac{2\sqrt{2}}{2} = \sqrt{2}$$

$$\frac{\sqrt{24}}{2\sqrt{3}} = 2\sqrt{8}$$

$$\frac{3\sqrt{14}}{6\sqrt{2}} = \frac{\sqrt{7}}{2}$$

$$\frac{3\sqrt{14}}{6\sqrt{2}} = 2\sqrt{7}$$

$$\frac{\sqrt{5}}{\sqrt{5}} = 1$$

$$\frac{\sqrt{5}}{\sqrt{5}} = 0$$

then find the answer to these:

$$\frac{\sqrt{30}}{\sqrt{5}} =$$

$$\frac{8\sqrt{40}}{4\sqrt{2}} =$$

$$\frac{8\sqrt{6}}{6\sqrt{6}} =$$

$$\frac{6\sqrt{42}}{9\sqrt{7}} =$$

(Hint: Think about division of polynomials.)

... and now see if you can do these!

$$\frac{\sqrt{18}}{3\sqrt{2}} =$$

$$\frac{3\sqrt{12} + 7\sqrt{6}}{\sqrt{3}} =$$

$$\frac{\sqrt{2}}{\sqrt{10}} =$$