

3U – C3 – day 3 – Try on Your Own ...Multiplication and Division

1. Multiply

a) $2\sqrt{3} \times 5\sqrt{5}$

b) $(-4\sqrt{3})^2$

d) $(2 - 2\sqrt{3})(5 + \sqrt{3})$

e) $(x - \sqrt{3})(x + \sqrt{5})$

2. Express each of the following in simplest form.

a. $\frac{\sqrt{30}}{\sqrt{6}}$

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

$$\frac{14\sqrt{16}}{2\sqrt{8}}$$

3. Express each of the following in simplest form.

a) $\frac{\sqrt{24}}{\sqrt{6}}$

b) $\frac{-\sqrt{72}}{\sqrt{8}}$

c) $\frac{6\sqrt{75}}{3\sqrt{5}}$

4. Expand and Simplify

a) $(x+3)(x+2)$

b) $(x+3)(x-3)$

c) $(3+\sqrt{5})(2-\sqrt{5})$

d) $(2+\sqrt{5})(2-\sqrt{5})$

e) $(x+\sqrt{2})(x-\sqrt{2})$

5. Rationalize the denominator. (How can you make the root go away in the denominator?)

a) $\frac{1}{\sqrt{5}}$

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

c) $\sqrt{\frac{9}{13}}$

d) $\frac{3\sqrt{5}}{2\sqrt{15}}$

e) $\frac{-\sqrt{18}}{2\sqrt{10}}$