

Skill Review: divide fractions (polynomials)

$$\frac{12}{18} =$$

$$\frac{24x^3}{16x} =$$

$$\frac{12x^2y}{16xy^3} =$$

$$\frac{16x^2 + 24xy}{8x} =$$

Outcome: Divide radicals; simplify where possible.

1. Divide the following radicals. Simplify if possible.

a. $\frac{\sqrt{18}}{\sqrt{6}}$

b. $\frac{4\sqrt{80}}{8\sqrt{10}}$

c. $\frac{\sqrt{125}}{\sqrt{5}}$

d. $\frac{5\sqrt{96}}{\sqrt{12}}$

Outcome: Rationalize denominators (do not leave a radical on the top and bottom of an expression).

Math Problem: What kind of number do we get when we multiply a square root radical by itself?

e. $\frac{3\sqrt{24}}{2\sqrt{5}}$

f. $\frac{2\sqrt{30}}{\sqrt{8}}$

2. Divide the following. Rationalize the denominator. Simplify wherever possible.

a. $\frac{10\sqrt{12}}{2\sqrt{2}}$

b. $\frac{15\sqrt{24}}{5\sqrt{18}}$

c. $\frac{4\sqrt{6}+8\sqrt{18}}{2\sqrt{6}}$

d. $\frac{12\sqrt{60} - 15\sqrt{40}}{3\sqrt{5}}$

e. $\frac{4\sqrt{2} - 10\sqrt{6}}{2\sqrt{3}}$

f. $\frac{5 + \sqrt{14}}{\sqrt{20}}$

Practice Questions: page 198 #3, 13, 14, 16