If the expression has a fractional exponent, rewrite it using a radical. If the expression has a radical, rewrite it using exponents.

$8^{\frac{3}{7}}$ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ $25^{\frac{3}{5}}$ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

$\sqrt[4]{21}$ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ $\sqrt[3]{p^{2}}$ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

$(x^{3})^{\frac{2}{5}}$ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ $(a-5)^{\frac{-1}{3}}$ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

$\sqrt[8]{a^{3}b^{5}}$ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ($\sqrt[3]{ab^{2}})^{5}$ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Simplify. Write answers with positive exponents.

$(2^{3}z^{5})^{-2}$ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ $(3ab^{2}c^{5})^{3}$ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

$c^{2 }∙ c^{5} ∙ c^{-4} $\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ $(3a^{2}b)\left(-4b^{5}c^{2}\right)$ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

$(2xy^{2})^{3}(3x^{-1}yz^{2})^{-2}$ \_\_\_\_\_\_\_\_\_\_\_\_ $\frac{3ab^{2}}{2b^{-3}c^{4}}$ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

$\frac{-7m^{2}n^{3}}{2m^{3}n^{-4}}$ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ $\frac{5(r^{2}s^{-3})^{2}}{6s^{2}t^{3}}$ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Match each trinomial with its factors.

 $x^{2}-7x+10 $\_\_\_\_\_\_\_\_\_\_\_\_ A. (x+5)(x+2)

 $x^{2}+3x-10 $ \_\_\_\_\_\_\_\_\_\_\_\_ B. (x+5)(x-2)

 $2x^{2}+7x+5$ \_\_\_\_\_\_\_\_\_\_\_\_ C. (x-5)(x+2)

 $x^{2}+7x+10$ \_\_\_\_\_\_\_\_\_\_\_\_ D. (x-5)(x-2)

 $2x^{2}+11x+5$ \_\_\_\_\_\_\_\_\_\_\_\_ E. (2x+1)(x+5)

 $x^{2}-3x-10 $ \_\_\_\_\_\_\_\_\_\_\_\_ F. (2x+5)(x+1)

Decide whether each square root is rational or irrational. If it is rational, give its value.

$\sqrt{\frac{4}{18}}$ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ $\sqrt{\frac{9}{4}}$ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

$-\sqrt{49}$ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ $\sqrt{\frac{32}{50}}$ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_