

Simplify each without a calculator. Leave answer as an improper fraction in reduced form.

1. $\frac{36}{48} \cdot \frac{24}{27}$

2. $\frac{15}{32} \div \frac{35}{64}$

3. $\frac{7}{24} + \frac{11}{28}$

4. Solve. Leave your answer as an improper fraction if necessary.

$x =$

$$\frac{7}{8} + \frac{11x}{24} - \frac{x}{12} = \frac{5}{6}$$

5. Solve for Q. State restrictions on the variables.

$Q =$

$$\frac{RQ - K}{M} = E$$

6. Simplify. $\frac{\frac{4}{x}}{x+2}$

7. Simplify this rational expression by factoring both numerator and denominator and canceling common factors. State restrictions on the variable.

$$\frac{8x^5 - 72x^3}{10x^3 - 20x^2 - 150x}$$