Solve the system of equations.
1) \[
\begin{align*}
-3x + 5y &= 16 \\
5x + 4y &= 35
\end{align*}
\]

Solve the system by elimination.
2) \[
\begin{align*}
7x + 8y &= 7 \\
6x + 7y &= 3
\end{align*}
\]

Use the problem-solving strategy for applications of linear equations to solve the application problem.
3) A rectangle's length is eight more than its width and its perimeter is 132 m. Find its dimensions.
4) A rectangle's length is twice its width and its perimeter is 216 m. Find its dimensions.

Graph.
5) \( y = \frac{1}{3}x - 3 \)

Write the equation of the line from the given information.
Write the line in slope-intercept form.
6) Slope = -2; passes through (-5, 8)
7) Slope = 3; passes through (-8, 7)

Simplify the complex rational expression.
8) \[
\frac{\frac{2}{x} \cdot \frac{3}{y}}{\frac{3}{x} - \frac{2}{y}}
\]

9) \[
\frac{\frac{2}{x} + \frac{3}{y}}{\frac{4}{x^2} - 9}
\]

Add or subtract. Simplify if possible.
10) \[
\frac{\frac{7x}{x^2 - 16} - \frac{x}{x - 4}}{x - 6}
\]

Find the domain and range of the relation.
12) A) domain: \((-\infty, 5]\), range: \((-\infty, 4]\)
B) domain: \((-2, 8]\), range: \((-7, 3]\)
C) domain: \((-\infty, \infty]\), range: \((-\infty, \infty]\)
D) domain: \((-\infty, 5]\) or \((5, \infty]\), range: \((-\infty, 4]\)
Use the product rule to simplify.

14) \( \sqrt[3]{-64a^8b^5} \)

15) \( \sqrt{448x^2} \)

Evaluate the function.

16) \( g(x) = -2x^2 - 3x + 2 \); \( g(-3) \)

Evaluate the rational function.

17) If \( f(x) = \frac{x^3 + 1}{x^2 - 2} \), find \( f(-5) \).

Simplify using the rules for exponents. Use only positive exponents in your answer.

18) \( \left( \frac{8x^{-5}z^4}{2xz^{-4}} \right)^{-3} \)

Solve the equation by using the zero–factor property.

19) \( 2p^2 - 5p - 7 = 0 \)

Solve the quadratic equation using the quadratic formula.

20) \( 5x^2 + 12x + 3 = 0 \)

21) \( x^2 - 4x - 7 = 0 \)
1) (3, 5)
2) (25, - 21)
3) 37 m by 29 m
4) 72 m by 36 m
5) $y = -2x - 2$
6) $y = 3x + 31$
7) $\frac{2y + 3x}{3y - 2x}$
8) $\frac{x}{2 - 3x}$
9) $\frac{-x^2 + 3x}{x^2 - 16}$
10) $\frac{9x - 24}{x(x - 6)}$
11) domain: $(-\infty, \infty)$, range: $[-5, \infty)$
12) B
13) $f(-5) = \frac{-124}{23}$
14) $-4a^2b \sqrt{a^2b^2}$
15) $8x\sqrt{2}$
16) -7
17) $\left\{ \frac{7}{2}, -1 \right\}$
18) $\left\{ \frac{-6 - \sqrt{21}}{5}, \frac{-6 + \sqrt{21}}{5} \right\}$
19) $\left\{ 2 + \sqrt{11}, 2 - \sqrt{11} \right\}$