Question 1 of 38
Rewrite the expression by factoring out \((u + 6)\).

\[ 7u^2(u + 6) - 2(u + 6) \]

Question 2 of 38
Factor by grouping.

\[ 3x^3 - 2x^2 - 15x + 10 \]

Question 3 of 38
Factor by grouping.

\[ 8w - wv - 2v + 4w^2 \]

Question 4 of 38
Factor.

\[ z^2 - 8z - 20 \]

Question 5 of 38
Factor.

\[ x^2 + 7xy - 18y^2 \]
Question 6 of 38
Factor completely.

\[ 3v^2 - 15v - 72 \]

Question 7 of 38
Factor.

\[ 5z^2 + 8z + 3 \]

Question 8 of 38
Factor.

\[ 3z^2 - 14z - 24 \]

Question 9 of 38
Factor.

\[ 15z^2 + 37z + 18 \]

Question 10 of 38
Factor.

\[ 8x^2 - 6xy - 9y^2 \]

Question 11 of 38
Factor completely.

\[ -5y^2 + 3y + 14 \]
**Question 12 of 38**
Factor.

\[ u^2 + 10u + 25 \]

**Question 13 of 38**
Factor.

\[ 49x^2 - 56x + 16 \]

**Question 14 of 38**
Factor.

\[ 16u^2 + 40uy + 25y^2 \]

**Question 15 of 38**
Factor.

\[ 81w^2 - 49 \]

**Question 16 of 38**
Factor.

\[ 49y^2 - 64z^2 \]

**Question 17 of 38**
Factor completely.

\[ 75 - 12x^2 \]
Question 18 of 38
Factor completely.

\[ 2y^4 - 98x^2y^2 \]

Question 19 of 38
Factor completely.

\[ 9y^6 + 12y^5 - 21y^4 \]

Question 20 of 38
Factor completely:

\[ y^4x^2 - 81x^2 \]

Question 21 of 38
Factor.

\[ 125 - 27w^3 \]

Question 22 of 38
Simplify.

\[ \sqrt{24} \]

Question 23 of 38
Simplify.

\[ \sqrt{160} \]
Question 24 of 38
Simplify.
\[ 9\sqrt{5} - 3\sqrt{5} \]

Question 25 of 38
Simplify.
\[ 4\sqrt{12} + \sqrt{75} \]

Question 26 of 38
Simplify.
\[ \sqrt{50x} - \sqrt{18x} \]
Assume that the variable represents a positive real number.

Question 27 of 38
Simplify.
\[ \sqrt{3} \cdot \sqrt{2} \]

Question 28 of 38
Simplify.
\[ \sqrt{6} \cdot \sqrt{2} \]

Question 29 of 38
Write in terms of \( i \).
Simplify your answer as much as possible.
\[ \sqrt{-40} \]
Question 30 of 38
Solve.

\[(5 + z)(5z + 8) = 0\]

(If there is more than one solution, separate them with commas.)

Question 31 of 38
Solve for \(y\).

\[4y^2 - 24y = 0\]

Question 32 of 38
Solve for \(x\).

\[x^2 + 6x - 7 = 0\]

Question 33 of 38
Solve for \(v\).

\[5v^2 - 19v = 4\]

Question 34 of 38
Solve for \(u\).

\[2u^2 - 4u + 16 = (u + 2)^2\]

If there is more than one solution, separate them with commas.

Question 35 of 38
Solve \(x^2 = 54\), where \(x\) is a real number.
Simplify your answer as much as possible.

Question 36 of 38
Solve \((x - 3)^2 - 32 = 0\), where \(x\) is a real number.
Simplify your answer as much as possible.
Question 37 of 38

Use the quadratic formula to solve for $x$.

$$7x^2 + 3x - 2 = 0$$

Question 38 of 38

Find all complex solutions of $4x^2 + 5x + 2 = 0$. 
Exam 1 Practice Problems #3 Answers for class Lacoste
College Algebra Fall 2019

Question 1 of 38
\((u + 6)(7u^2 - 2)\)

Question 2 of 38
\((3x - 2)(x^2 - 5)\)

Question 3 of 38
\((4w - v)(2 + w)\)

Question 4 of 38
\((z + 2)(z - 10)\)

Question 5 of 38
\((x - 2y)(x + 9y)\)

Question 6 of 38
\(3(v + 3)(v - 8)\)

Question 7 of 38
\((z + 1)(5z + 3)\)

Question 8 of 38
\((z - 6)(3z + 4)\)

Question 9 of 38
\((3z + 2)(5z + 9)\)

Question 10 of 38
\((4x + 3y)(2x - 3y)\)

Question 11 of 38
Question 12 of 38

\(-(y - 2)(5y + 7)\)

\((u + 5)^2\)

Question 13 of 38

\((7x - 4)^2\)

\((4u + 5y)^2\)

Question 14 of 38

\((9w + 7)(9w - 7)\)

Question 15 of 38

\((7y + 8z)(7y - 8z)\)

Question 16 of 38

\(3(5 + 2x)(5 - 2x)\)

Question 17 of 38

\(2y^2(y + 7x)(y - 7x)\)

Question 18 of 38

\(3v^4(v - 1)(3v + 7)\)

Question 19 of 38

\(x^2(v - 3)(v + 3)(v^2 + 9)\)

Question 20 of 38

\((5 - 3w)(25 + 15w + 9w^2)\)

Question 21 of 38
Question 22 of 38

\[ 2\sqrt{6} \]

Question 23 of 38

\[ 4\sqrt{10} \]

Question 24 of 38

\[ 6\sqrt{5} \]

Question 25 of 38

\[ 13\sqrt{3} \]

Question 26 of 38

\[ 2\sqrt{2x} \]

Question 27 of 38

\[ \sqrt{6} \]

Question 28 of 38

\[ 2\sqrt{3} \]

Question 29 of 38

\[ 2i\sqrt{10} \]
Question 30 of 38

\[ z = -5, -\frac{8}{5} \]

Question 31 of 38

\[ y = 0, 6 \]

Question 32 of 38

\[ x = 1, -7 \]

Question 33 of 38

\[ -\frac{1}{5}, 4 \]

Question 34 of 38

\[ u = 6, 2 \]

Question 35 of 38

\[ x = 3\sqrt{6}, -3\sqrt{6} \]

Question 36 of 38

\[ x = 3 + 4\sqrt{2}, 3 - 4\sqrt{2} \]

Question 37 of 38

\[ \frac{-3 + \sqrt{65}}{14}, \frac{-3 - \sqrt{65}}{14} \]

Question 38 of 38

\[ x = -\frac{5}{8} + \frac{\sqrt{7}}{8}i, -\frac{5}{8} - \frac{\sqrt{7}}{8}i \]