Class Name : **Lacoste College Algebra Fall 2019**

Student Name : _____

Instructor Name : **Master Templates**

Instructor Note : **All practice problems for Exam 1. There are multiple versions so that you can try challenging problems more than once.**

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.

$$9v^6 + 12v^5 - 21v^4$$

Question 20 of 38

Factor completely:

$$v^4x^2 - 81x^2.$$

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

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

Question 12 of 38

$(u+5)^2$

Question 13 of 38

$(7x-4)^2$

Question 14 of 38

$(4u+5y)^2$

Question 15 of 38

$(9w+7)(9w-7)$

Question 16 of 38

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

Question 17 of 38

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

Question 18 of 38

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

Question 19 of 38

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

Question 20 of 38

$x^2(v-3)(v+3)\left(v^2+9\right)$

Question 21 of 38

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

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

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