

C12 - 7.2 - Separate/Factoring/Solving Exponents Notes

Solve for x

$$3^x = 27^2$$

$$2^x = 16^2$$

$$5^x 5^2 = 5^5$$

$$3^x 3 = 3^5$$

$$4^{x+1} = 2 \times 8^{2x-5}$$

$$64^{x+1} = 4^{2x}$$

$$16^{2x+1} = 2^{2x}$$

$$\left(\frac{1}{3}\right)^{-x-1} = 27^{2x-8}$$

$$7 \times 3^{2x^2+5x} = \frac{7}{9}$$

C12 - 7.2 - Separate/Factoring/Solving Exponents Notes

Solve for x

$$5^{x^2-5} = 625$$

$$5^{x^2-x} = 1$$

$$3^{x^2+x} = 9$$

$$x = \pm 3$$

$$x = 0, 1$$

$$x = 1, -2$$

$$3^{x^2-1} = 27$$

$$4^{x^2-3x} = 1$$

$$5^{x^2-3x} = \frac{1}{25}$$

$$x = \pm 2$$

$$x = 0, 3$$

$$x = 2, 1$$