

1. Solve the equation below for x .

$$2^{4x-5} = \left(\frac{1}{125}\right)^{5x+5}$$

2. Solve the equation below for x .

$$15 = \sqrt[4]{\frac{11}{e^{3x}}}$$

3. Describe the Range of the function below.

$$f(x) = \log_2(x + 5) + 2$$

4. Solve the equation below for x .

$$\log_2(-2x + 5) + 6 = 2$$

5. Describe the Domain of the function below.

$$f(x) = \log_2(x + 5) - 7$$

6. Solve the equation below for x .

$$2^{2x+4} = \left(\frac{1}{27}\right)^{3x+3}$$

7. Describe the Range of the function below.

$$f(x) = -e^{x+8} + 5$$

8. Solve the equation below for x .

$$5 = \ln \sqrt[3]{\frac{10}{e^{7x}}}$$

9. Solve the equation below for x .

$$\log_4(4x + 6) + 6 = 2$$

10. Describe the Range of the function below.

$$f(x) = -e^{x+3} - 5$$