1. Solve the equation below for x.

$$4^{-4x-4} = \left(\frac{1}{25}\right)^{2x-2}$$

2. Solve the equation below for x.

$$14 = \ln \sqrt[7]{\frac{5}{e^{4x}}}$$

3. Describe the Domain of the function below.

$$f(x) = -\log_2(x-8) + 4$$

4. Solve the equation below for x.

$$\log_2(-3x+6)+5=2$$

5. Describe the Domain of the function below.

$$f(x) = -\log_2(x+4) + 7$$

6. Solve the equation below for x.

$$5^{4x+2} = 16^{3x+5}$$

7. Describe the Domain of the function below.

$$f(x) = e^{x-2} - 7$$

8. Solve the equation below for x.

$$15 = \ln \sqrt[6]{\frac{28}{e^{6x}}}$$

9. Solve the equation below for x.

$$\log_4(-3x+5)+6=3$$

10. Describe the Domain of the function below.

$$f(x) = -e^{x-9} + 9$$