

MAC 1140  
Ch 5 Sec 5

Exponential and  
Logarithmic Equations

Instr: Jamieson

3/25/2010

1.  $3e^{\frac{x}{5}-9} + 2 = 7$

2.  $\frac{e^{\frac{x}{5}-3} + 2}{4} = 7$

3.  $3e^{\frac{x-9}{5}} + 2 = 7$

4.  $\frac{3e^{\frac{x}{5}-3} + 1}{2} = 7$

5.  $3e^{\frac{7x}{5}-1} + 2 = 4$

6.  $3e^{5x-9} + 2 = 7$

7.  $\frac{e^{5x-9} + 2}{3} = 7$

8.  $3e^{3x+5} + 2 = 7$

9.  $\frac{e^{3x-5} + 2}{7} = 2$

10.  $\frac{e^{\frac{x}{5}-3} + 2}{9} = 2$

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Answers:

1.  $5\left(\ln\left(\frac{5}{3}\right)+9\right)$  OR  $5\ln\left(\frac{5}{3}\right)+45$

2.  $5(\ln(26)+3)$  OR  $5\ln(26)+45$

3.  $5\ln\left(\frac{5}{3}\right)+9$

4.  $5\left(\ln\left(\frac{14}{3}\right)+3\right)$

5.  $\frac{5\left(\ln\left(\frac{2}{3}\right)+1\right)}{7}$

6.  $\frac{\ln\left(\frac{5}{3}\right)+9}{5}$

7.  $\frac{\ln(19)+9}{5}$

8.  $\frac{\ln\left(\frac{5}{3}\right)-5}{3}$

9.  $\frac{\ln(16)+5}{3}$

10.  $5(\ln(16)+3)$  OR  $5\ln(16)+15$