

## Unit 3: Exponential and Logarithmic Functions

### Activity 5: Solving Logarithmic Equations

#### Formative Assignment

1) Solve each of the following.

a.  $\log_5 x = \log_5 24$

b.  $\log x = 3 \log 2$

c.  $\log_5 x = \log_5 3 + \log_5 7$

d.  $\log_2(x - 4) = 4$

e.  $\log(2x - 4) = 1$

f.  $\log_2(7x + 8) = 6$

g.  $\log_x 9 = 2$

h.  $\log_2(x + 2) = -2$

i.  $\log x + \log 5x = 3$

j.  $\log_2 54x - \log_2 27 = 7$

k.  $\log_2 3x + \log_2 x = \frac{1}{2} \log_2 729$

l.  $\log_3(x + 4) + \log_3(x - 4) = 2$