

Each problem is worth 5 points. For full credit provide complete justification for your answers.

1. Evaluate $\log_5 25$.

$$x = 2$$

$$\log_5 25 = x$$

$$5^x = 25$$

$$x = 2$$

2. Solve $3^x = 35$ for x , and give your answer both as an exact value and as an approximation correct to three decimal places.

$$3^x = 35$$

~~scribble~~

$$\log 3^x = \log 35$$

$$x \log 3 = \log 35$$

$$x = \frac{\log 35}{\log 3}$$

$$x = 3.236$$