Work carefully and neatly. You must show all relevant work! You may receive no credit if there is insufficient work. Each problem is worth 3 points.

1. How long will it take an investment of $2,000 to become $4,000, if it is invested at 6\% compounded continuously?

2. Find the exact value of the following:
   \( \text{(a) } \sin \frac{5\pi}{4} \quad \text{ (b) } \csc \left(-\frac{\pi}{4}\right) \)

3. Find \( \cos t \), given that \( \sin t = 3/5 \) and \( t \) is in the second quadrant.

4. Graph the function \( y = 2\sin(x + \pi/4) \) over one period. Indicate the period, amplitude and all the intercepts on that period.