

Show all your work if you want to receive credit.

- (1) Sketch the graph of each of the following equations
 (a) $5x - 12y = 30$ (b) $x = 5$
- (2) Find the equation of the line through each of the following pairs of points. Write your answer in the form $Ax + By = C$, without fractions or decimals
 (a) $(7, 2)$ and $(-5, 3)$ (b) $(3, 2)$ and $(3, -6)$
- (3) Use a calculator to find the value of the following. Answers should be accurate to four places to the right of the decimal point.
 (a) $\ln 6.2$ (b) 1.006^{360} (c) $e^{2.4}$
- (4) Solve the following equations. Answers should be accurate to four places to the right of the decimal point.
 (a) $1.005^x = 6.3$ (b) $\ln x = -1.9$
- (5) Use your calculator to find an exponential model for the data

x	0	2	3	4	5
y	15	23	41	127	238

 Use this model to estimate the value of y when $x = 7$.
- (6) You have invested \$1200 in an account earning 8%, compounded quarterly for 4 years. What is the value of the account?
- (7) You have invested \$1000 in an account earning 8%, compounded quarterly for t years. How many years must you wait for the account to be worth \$10,000?
- (8) You have invested \$1000 in an account earning 6%, compounded continuously for t years. How many years must you wait for the account to double?
- (9) A gardener wants to prepare a special fertilizer by mixing two available blends. Bandini contains 15% nitrogen and Wonderbloom contains 10% nitrogen. If the gardener wants to obtain 135 grams of nitrogen, write and graph a linear equation that shows how much Bandini and Wonderbloom to use.