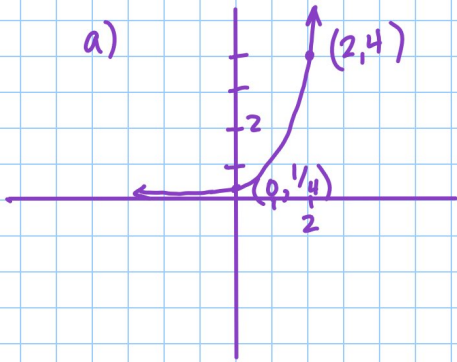


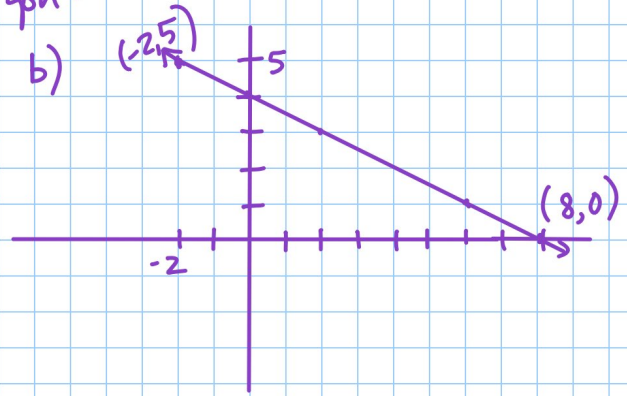
PPP Chapter 1

1) Find the equation for each graph:

a)



b)



2) Beehive rental charges \$50 to rent a dingo for 5 hrs and \$75 to rent a dingo for 10 hrs.

a) Write a linear function for Cost, C , of renting a dingo, for h hours.

b) What is the slope and what does it mean?

c) What is the cost of renting a dingo for 30 hrs?

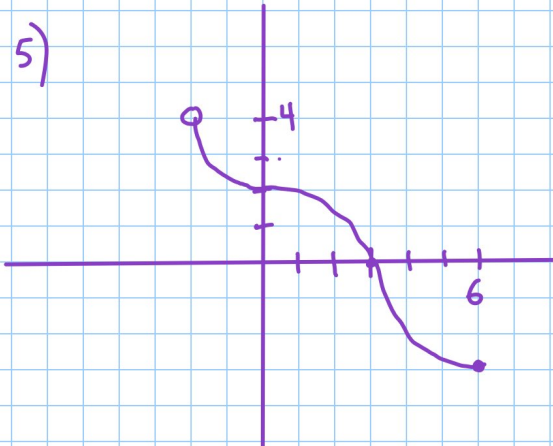
d) If you have \$125 budgeted, for how many hours can you rent the dingo?

3) Solve for x :

a) $400 = 40e^{x-5}$

b) $7^x = 64$

4) Find k so the following function is continuous

$$f(x) = \begin{cases} kx^2 + 3 & x < -1 \\ x + 6 & x \geq -1 \end{cases}$$


- What is the domain?
- What is the range?
- List all roots.
- List intervals of decreasing.
- Is it concave up or concave down at $x = 5$?
- Is it invertible?

6) A 425-lb person is losing weight. If t = number of weeks since weight loss begins, write a formula for weight, W as a function of t if:

- Weight decreases at 4 lbs per week
- Weight decreases at 1% per week.
- Find the person's weight after 1 year (52 weeks) in each case.

7) Given $f(x) = 5x^2 - 2x + 3$, find:

a) $f(-5)$

b) $f(-5+h)$

c) $f(-5+h) - f(-5)$

d) $\frac{f(-5+h) - f(-5)}{h}$