

Quiz # 1

Name: Key

*You must show your work to get full credit.*

1. Use the following graph to do the following:

(a) Estimate  $f(8)$

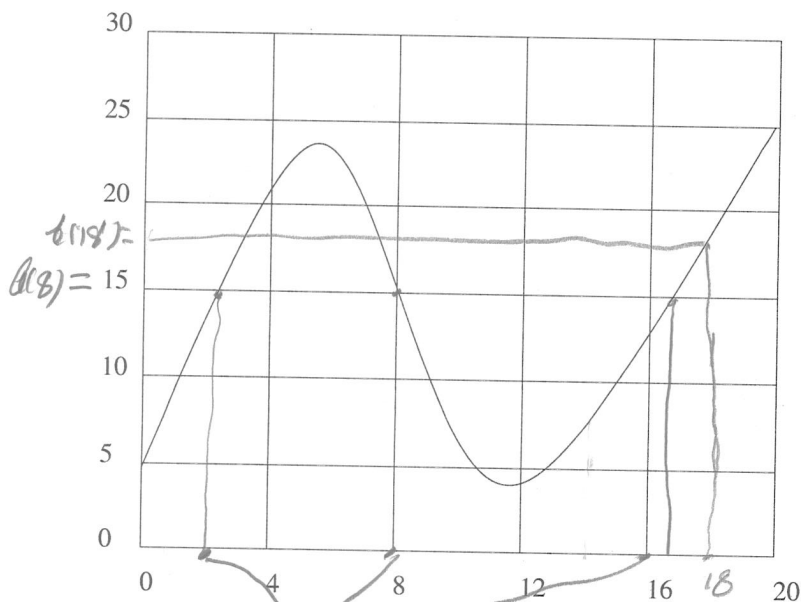
$f(8) \approx$  15

(b) Estimate  $f(18)$

$f(18) \approx$  18

(c) Estimate the solutions to  $f(x) = 15$ .

Solutions are  $\approx 2, 8, 17$



2. Find the point of intersection of the two lines

Roots of  $0x - 15$

$$y = 7 - 2x$$

$$y = 1 + x$$

Point of intersection is (2, 3)

This is where

$$7 - 2x = 1 + x$$

$$-3x = -6$$

$$x = \frac{-6}{-3} = 2$$

$$y = 1 + x = 1 + 2 = 3$$

or

$$y = 7 - 2x = 7 - 2(2) = 3$$