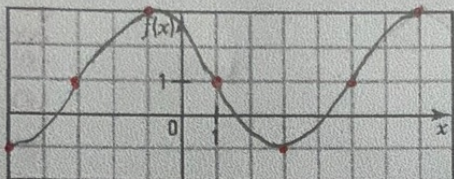# QUIZ #4B

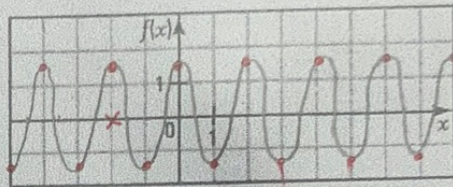**MAS506 Trigonometric Functions Quiz**

Name: ___MASTER___ /10

1. Graph the following functions. Draw enough cycles or part-cycles to fill the entire graph

a) $f(x) = -2\sin\frac{\pi}{4}(x-1)+1$ $P = 8$
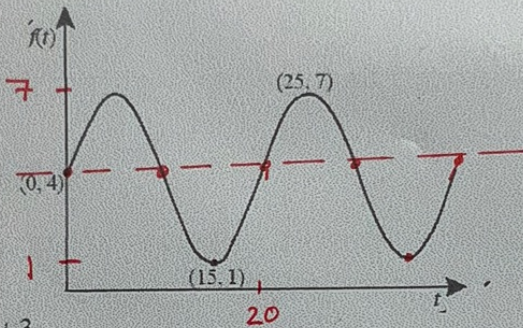
(h,k)
$(1,1)$

b) $f(x) = \frac{3}{2}\cos\pi(x+2)$ $P = 2$

h,k
$(-2,0)$

2. Given the function shown here, determine the rule as...

a) a sine function

b) a cosine function

(25, 7)
(0, 4)
(15, 1)
20

$a = 3$
$P = 20$ $\therefore b = \frac{2\pi}{20} = \frac{\pi}{10}$

$f(x) = 3\sin\frac{\pi}{10}(x)+4$
$= 3\sin\frac{\pi}{10}(x-20)+4$
$= -3\sin\frac{\pi}{10}(x-10)+4$

$f(x) = 3\cos\frac{\pi}{10}(x-5)+4$
$= -3\cos\frac{\pi}{10}(x-15)+4$
$= 3\cos\frac{\pi}{10}(x-25)+4$

3. Determine the zeros of the function $f(x) = 5\sin 6(x-11)+3$.

Zeros $\begin{pmatrix} 9.846 & 10.584 \\ 10.893 & 11.631 \\ 11.940 & 12.688 \end{pmatrix}$

$+\frac{\pi}{3}n, \; n \in \mathbb{Z}$

over $\mathbb{R}$