

Question Three

$$\text{a) i) } \sin x = 0.67$$

$$x = \sin^{-1}(0.67) + 2\pi n, x = \pi - \sin^{-1}(0.67) + 2\pi n$$

$$(x = 0.73420 + 2\pi n, x = \pi - 0.73420 + 2\pi n)$$

$$\text{ii) } \tan^2 x - 7 \tan x + 10 = 0$$

$$\tan x = 5, \tan x = 2$$

$$x = \tan^{-1} 5 + \pi n, x = \tan^{-1} 2 + \pi n$$

$$(x = 1.37340 + \pi n, x = 1.10714 + \pi n)$$

Question Four

$$y = 5x^2 + 12x - 14$$

$$y = 4x^2 + 3x - 4$$

$$y = 5x^2 + 12x - 14$$

$$y = 16x^2 + 12x - 16$$

$$y = -11x^2 - 30$$