Math – Quiz 5 (10 marks)

Student's Name: _____

Grade 11th

مدارس البكالوريا

BACCALAUREATE SCHOOLS
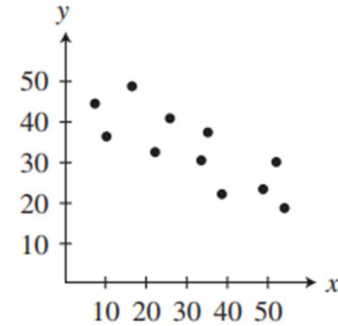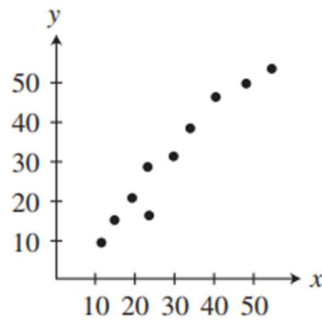
30th October, 2025
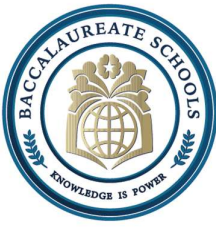
Q1) Describe the strength and direction of the linear correlation:
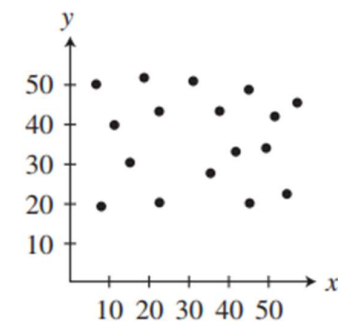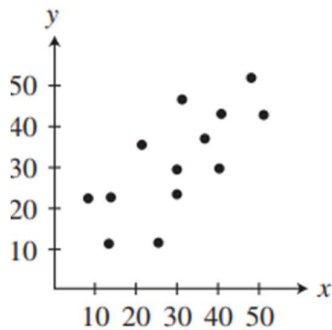
Q2) Write an equation for the linear function ƒ satisfying the given conditions

$f(-5) = 4$ and $f(8) = -7$

$f(-6) = 0$ and $f(0) = 4$

Q3) Patrick's doll-making business has weekly fixed costs of $350. If the cost for materials is $4.70 per doll and his total weekly costs average $500, about how many dolls does Patrick make each week

Q4) Hooke's law, which states that the distance x that a spring stretches (or compresses) is proportional to the force F pulling (or pushing) on the spring: $F = kx,$ where k is the spring constant. (a) Graph $F = kx$; (b) write the vertical (or horizontal) stretch or shrink that can be used to transform the graph of $y = x$ into the graph of $F = kx$.

1- k = 385.2 ib/ft

2- k = 4327 N/m