Math Studies Calculus Homework #5

**Find the gradient of the tangent of:**

1) f(x) = 7x3 – 8x2 + 3x + 2 at x = -1 2) f(x) = 5 -  at x = 2 3) Explain your answer to #5

**Find the coordinates of the point(s) on f(x) = x2 + 4x -7 where:**

4) the tangent is horizontal

5) the tangent has gradient 1

**Find the equation of the tangent to y = f(x) for:**

6) f(x) = 3x2 + 5x + 2 at x = -2 7) f(x) = x +  at x = -1 8) f(x) = x2 + 4x + 4 at the point (1,9)

9) Find a if  has a tangent with gradient 5 at the point

where x = -1.

10) Find k if the tangent to at the point x=-1 has gradient 6.

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