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Mathematics, Science and Computer Department



INTENSIVE MATHEMATICS (PBM1035) Session December 2017 SELF-EXERCISE 15

Instructions

- Answer ALL questions. Write your answers in the spaces provided.
- Show your working. You may use a non-programmable scientific calculator.

Differentiate each function with respect to *x*.

1.
$$y = -2x$$

2.
$$y = 4x^2$$

3.
$$y = -\frac{1}{x^2}$$

4. $y = 3x^2$
5. $y = \frac{5}{x^4}$

4.
$$v = 3x^2$$

5.
$$y = \frac{5}{x^4}$$

$$6. \quad y = \sqrt[3]{x}$$

7.
$$v = -3x^{-3}$$

8.
$$y = \frac{1}{6x^2}$$

9.
$$y = \frac{3}{2}x^2$$

6.
$$y = \sqrt{x}$$

7. $y = -3x^{-3}$
8. $y = \frac{1}{6x^2}$
9. $y = \frac{1}{2}x^2$
10. $y = -\frac{2}{3x}$