Practice worksheet | Real Polynomials

Remainder theorem

Name: _____ Date: _____

6 questions | 14 marks

1. Find the remainder when $x^4 - 3x^2 + 2x + 1$ is divided by $x - 2$. [2 marks]

2. Find the remainder when $2x^3 + x^2 - 5$ is divided by $x + 2$. [2 marks]

3. Find the remainder when $4x^3 - 2x + 3$ is divided by $2x + 1$. [2 marks]

4. $P(x) = x^3 + kx + 2$ has remainder 8 on division by $x - 2$. Find k. [2 marks]

5. $P(1) = 4$ and $P(-1) = 2$. Find the remainder on dividing P by $x^2 - 1$. [3 marks]

6. $P(x)$ has remainder 3 when divided by $x - 2$. What remainder does $P(x) + 5(x - 2)^2 - 1$ have on division by $x - 2$? [3 marks]