Name_____

Dividing Polyomials - PRACTICE

Date_____ Period____

Divide.

1) $\left(v^5 + 2v^4 - 61v^3 - 6v^2 - 60v + 20\right) \div \left(v - 7\right)$

$v^4 + 9v^3 + 2v^2 + 8v - 4 - \dfrac{8}{v - 7}$

2) $\left(r^5 - 4r^4 + r^3 + 14r^2 - 11r - 5\right) \div \left(r - 2\right)$

$r^4 - 2r^3 - 3r^2 + 8r + 5 + \dfrac{5}{r - 2}$

3) $\left(3k^5 + 30k^4 + 72k^3 + 53k^2 - 75k - 42\right) \div \left(k + 7\right)$

$\quad 3k^4 + 9k^3 + 9k^2 - 10k - 5 - \dfrac{7}{k + 7}$

4) $\left(a^4 + 4a^3 - 39a^2 + 61a + 72\right) \div \left(a + 9\right)$

$\quad a^3 - 5a^2 + 6a + 7 + \dfrac{9}{a + 9}$

5) $\left(x^5 + x^4 + 7x\right) \div \left(x + 1\right)$

$$x^4 + 7 - \frac{7}{x + 1}$$

6) $\left(10v^5 + 10v^4 - 10v^2 - 6v\right) \div \left(v + 1\right)$

$$10v^4 - 10v + 4 - \frac{4}{v + 1}$$