

## Long Division

Date \_\_\_\_\_ Period \_\_\_\_\_

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**Divide using long division. Show your work on another piece of paper. Represent your answer correctly.**

1)  $(v^3 - 2v^2 - 54v - 82) \div (v - 9)$

2)  $(k^3 + k^2 - 2) \div (k + 1)$

3)  $(x^3 - 10x^2 + 11x + 37) \div (x - 8)$

4)  $(a^3 - 6a^2 + 13a - 20) \div (a - 4)$

5)  $(p^3 + 11p^2 + 37p + 33) \div (p + 4)$

6)  $(3x^3 + 2x^2 - 2x + 11) \div (x + 2)$

7)  $(10m^3 + 77m^2 + 29m - 20) \div (10m + 7)$

8)  $(36p^3 - 60p^2 - 3) \div (6p - 10)$

9)  $(3n^3 + 7n^2 + 22n + 19) \div (3n + 4)$

10)  $(2x^3 + 26x^2 + 76x + 40) \div (2x + 6)$

## Answers to Long Division (ID: 1)

$$1) v^2 + 7v + 9 - \frac{1}{v-9}$$

$$2) k^2 - \frac{2}{k+1}$$

$$3) x^2 - 2x - 5 - \frac{3}{x-8}$$

$$4) a^2 - 2a + 5$$

$$5) p^2 + 7p + 9 - \frac{3}{p+4}$$

$$6) 3x^2 - 4x + 6 - \frac{1}{x+2}$$

$$7) m^2 + 7m - 2 - \frac{6}{10m+7}$$

$$8) 6p^2 - \frac{3}{6p-10}$$

$$9) n^2 + n + 6 - \frac{5}{3n+4}$$

$$10) x^2 + 10x + 8 - \frac{4}{x+3}$$