



Unknown Variable

Name _____

Score _____

DP:26

- 1) Find the value of w that makes the expression $h^5 - h^4 - wh^3 - 2h^2 + 7h - 3$ divisible by $h - 3$.

- 2) Find the value of p that makes the expression $6x^2 + 37x + p$ divisible by $3x + 5$.

- 3) Find the value of k that makes the expression $u^3 + ku^2 + 7u - 12$ divisible by $u - 4$.

- 4) Find the value of y that makes the expression $4n^4 - yn^3 + n^2 - 20n + 10$ divisible by $2n - 1$.

- 5) Find the value of t that makes the expression $5b^2 + tb - 42$ divisible by $5b - 6$.



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Answer key

DP:26

- 1) Find the value of w that makes the expression $h^5 - h^4 - wh^3 - 2h^2 + 7h - 3$ divisible by $h - 3$.

$$\underline{\qquad\qquad\qquad} \\ \mathbf{w = 6}$$

- 2) Find the value of p that makes the expression $6x^2 + 37x + p$ divisible by $3x + 5$.

$$\underline{\qquad\qquad\qquad} \\ \mathbf{p = 45}$$

- 3) Find the value of k that makes the expression $u^3 + ku^2 + 7u - 12$ divisible by $u - 4$.

$$\underline{\qquad\qquad\qquad} \\ \mathbf{k = -5}$$

- 4) Find the value of y that makes the expression $4n^4 - yn^3 + n^2 - 20n + 10$ divisible by $2n - 1$.

$$\underline{\qquad\qquad\qquad} \\ \mathbf{y = 4}$$

- 5) Find the value of t that makes the expression $5b^2 + tb - 42$ divisible by $5b - 6$.

$$\underline{\qquad\qquad\qquad} \\ \mathbf{t = 29}$$