Unknown Variable

1) Find the value of h that makes the expression $3m^4 + hm^3 - 4m^2 + 41m - 36$ divisible by $m - 4$.

   _____

2) Find the value of k that makes the expression $kp^2 + 47p - 8$ divisible by $p + 8$.

   _____

3) Find the value of g that makes the expression $w^2 - gw + 54$ divisible by $w - 9$.

   _____

4) Find the value of n that makes the expression $3x^5 + 2x^4 + nx^3 + 16x^2 + 27x + 10$ divisible by $3x + 2$.

   _____

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

   _____

Unknown Variable

Answer key

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1) Find the value of h that makes the expression $3m^4 + hm^3 - 4m^2 + 41m - 36$ divisible by $m - 4$.

h = −13

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2) Find the value of k that makes the expression $kp^2 + 47p - 8$ divisible by $p + 8$.

k = 6

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3) Find the value of g that makes the expression $w^2 - gw + 54$ divisible by $w - 9$.

g = 15

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4) Find the value of n that makes the expression $3x^5 + 2x^4 + nx^3 + 16x^2 + 27x + 10$ divisible by $3x + 2$.

n = −3

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

p = 11