

9.2

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Evaluate each function at the given value.

1) $f(x) = x^3 - 4x^2 + 4x - 28$ at $x = 4$

2) $f(n) = 4n^3 - 28n^2 + 25n + 4$ at $n = 6$

3) $f(n) = n^3 - 7n^2 + 9n - 30$ at $n = 6$

4) $f(n) = 2n^4 + 10n^3 + 6n^2 + 35n + 18$ at $n = -5$

Simplify each expression.

5) $(2v^2 - 4v^4 + 2v^3) - (3v^2 + 6v^4 - 2v^3)$

6) $(6r^2 + 5 + 3r^4) + (6 + 7r^2 - 2r^4)$

7) $(x^2 + 8 + 3x) + (7x^3 + 6x - 7x^2)$

Find each product.

8) $(3k - 8)(k + 6)$

9) $(7p - 3)(7p + 1)$

10) $(5x + 7)(7x + 2)$

Answers to 9.2 (ID: 1)

1) -12

2) 10

3) -12

4) -7

5) $-10v^4 + 4v^3 - v^2$

6) $r^4 + 13r^2 + 11$

7) $7x^3 - 6x^2 + 9x + 8$

8) $3k^2 + 10k - 48$

9) $49p^2 - 14p - 3$

10) $35x^2 + 59x + 14$