

9 When $3x + 2 \leq 5(x - 4)$ is solved for x , the solution is

(1) $x \leq 3$

(3) $x \leq -11$

(2) $x \geq 3$

(4) $x \geq 11$

20 An example of a sixth-degree polynomial with a leading coefficient of seven and a constant term of four is

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|---------------------------|----------------------|
| (1) $6x^7 - x^5 + 2x + 4$ | (3) $7x^4 + 6 + x^2$ |
| (2) $4 + x + 7x^6 - 3x^2$ | (4) $5x + 4x^6 + 7$ |

14 Which recursively defined function has a first term equal to 10 and a common difference of 4?

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|--|---------------------------------------|
| (1) $f(1) = 10$ $f(x) = f(x - 1) + 4$ | (3) $f(1) = 10$ $f(x) = 4f(x - 1)$ |
| (2) $f(1) = 4$ $f(x) = f(x - 1) + 10$ | (4) $f(1) = 4$ $f(x) = 10f(x - 1)$ |

22 Using the substitution method, Vito is solving the following system of equations algebraically:

$$\begin{aligned}y + 3x &= -4 \\2x - 3y &= -21\end{aligned}$$

Which equivalent equation could Vito use?

- (1) $2(-3x - 4) + 3x = -21$ (3) $2x - 3(-3x - 4) = -21$
(2) $2(3x - 4) + 3x = -21$ (4) $2x - 3(3x - 4) = -21$

17 The function $V(t) = 1350(1.017)^t$ represents the value $V(t)$, in dollars, of a comic book t years after its purchase. The yearly rate of appreciation of the comic book is

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|----------|------------|
| (1) 17% | (3) 1.017% |
| (2) 1.7% | (4) 0.017% |

Answer Key:

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