

Mathematics Algebra I Benchmark Assessment

- 25 An expression is shown below.

$$(x^4 - 100)$$

Which is an equivalent expression?

- (A) $(x^2 - 10)^2$
 - (B) $(x - 10)(x + 10)$
 - (C) $(x^2 - 10)(x^2 - 10)$
 - (D) $(x^2 - 10)(x^2 + 10)$
- 26 Factored completely, the expression $12x^4 + 10x^3 - 12x^2$ is equivalent to which of the following?
- (A) $x^2(4x + 6)(3x - 2)$
 - (B) $2x^2(2x + 3)(3x - 2)$
 - (C) $2x^2(2x - 3)(3x + 2)$
 - (D) $2(2x^2 + 3x)(3x^2 - 2x)$

- 27 A function is shown below.

$$f(x) = x^2 - 8x - 4$$

Which of the following statements correctly describes this function?

- (A) The function can be expressed as $f(x) = (x - 4)^2 - 12$, and the minimum value of the function is -12 .
- (B) The function can be expressed as $f(x) = (x - 4)^2 - 12$, and the maximum value of the function is -12 .
- (C) The function can be expressed as $f(x) = (x - 4)^2 - 20$, and the minimum value of the function is -20 .
- (D) The function can be expressed as $f(x) = (x - 4)^2 - 20$, and the maximum value of the function is -20 .