BF.4a

1. What is the inverse of $g(x) = x^2 + 2$?

A
$$g^{-1}(x) = \pm \sqrt{x+2}$$

B $g^{-1}(x) = \pm \sqrt{x-2}$
C $g^{-1}(x) = \frac{1}{x^2+2}$
D $g^{-1}(x) = -\frac{1}{x^2+2}$

2. What is the *inverse* of $g(x) = \pm \sqrt{x+3}$

A
$$g^{-1}(x) = x^2 - 3$$

B
$$g^{-1}(x) = x^2 + 3$$

C
$$g^{-1}(x) = \frac{1}{x^2 - 3}$$

D
$$g^{-1}(x) = -\frac{1}{x^2 + 3}$$

BF.4b

- 3. Given two functions f and g, if f[g(x)] = x and g[f(x)] = x, what does this tell you about the functions?
- **A** *f* and *g* are inverses
- **B** f and g are the same
- **C** f(x) = x, and g(x) = x + 1
- **D** f(x) = -x, and g(x) = -x