



[1] Sometimes; students should give one example for which it is true and one for which it is not true.

Answer will vary. Sample: Both graphs are parabolas and have a  $y$ -intercept of  $-4$ .  $f(g(x))$  has a minimum at  $(-2, -8)$  and  $g(f(x))$  has a minimum at  $(1, -5)$ ;  $f(g(x))$  has an axis of symmetry at

[2]  $x = -2$ ;  $g(f(x))$  has an axis of symmetry at  $x = 1$ .

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