

**Business PreCalculus**    MATH 1643 Section 004, Spring 2014  
**Answer key:worksheet 16**

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**1-** Answers:

- a.**  $g(x)$  is determined from  $f(x)$  by shifting to the right 1 unit.
- b.**  $g(x)$  is determined from  $f(x)$  by shifting up 2 units.
- c.**  $g(x)$  is determined from  $f(x)$  by a horizontal stretching away from the  $y$ -axis, then a reflection on the  $x$ -axis, then shifting up 3 units.
- d.**  $g(x)$  is determined from  $f(x)$  by shifting to the right 1 unit, then by vertical stretching away from the  $x$ -axis.
- e.**  $g(x)$  is determined from  $f(x)$  by a reflection on the  $x$ -axis, then by shifting up 1 unit.
- f.**  $g(x)$  is determined from  $f(x)$  by a reflection on the  $y$ -axis, then by shifting to the left 1 unit, then a reflection on the  $x$ -axis, then shifting down 2 units.
- g.**  $g(x)$  is determined from  $f(x)$  by a horizontal compression toward the  $y$ -axis, then a reflection on the  $y$ -axis, then shifting up 4 units.