

Pre-Calculus Worksheet 1.5B Dilations

Name _____

Date _____ Hour _____

Identify the parent (original) function, describe the transformations done to the parent function, and graph both the parent function and the equation given on the same axes. Label graphs so you can tell which is which.

1. $f(x) = |3x|$

2. $f(x) = \left|\frac{x}{3}\right|$

3. $f(x) = 3|x|$

4. $f(x) = \frac{1}{3}|x|$

5. $g(x) = 2\left(\frac{x}{2}\right)^2$

6. $g(x) = \frac{1}{3}(2x)^2$

7. $g(x) = \sqrt{3x}$

8. $h(x) = 4\sqrt{-x}$

9. $g(x) = -2x^2$

10. $g(x) = -(2x)^2$

11. $g(x) = -4\sqrt{x}$

12. $g(x) = -2\sqrt{\frac{-x}{3}}$

13. $g(x) = (x-2)^2 - 5$

14. $g(x) = (x-2)^3 - 5$

15. $t(x) = 3\sin x$ (radian mode)

16. $t(x) = \sin(3x)$ (radian mode)

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