Name_____ Date _____

8.5 Practice B

In Exercises 1–4, graph one period of the function. Describe the graph of *g* as a transformation of the graph of its parent function.

1. $g(x) = 2 \tan 4x$

2. $g(x) = 3 \cot \frac{1}{2}x$
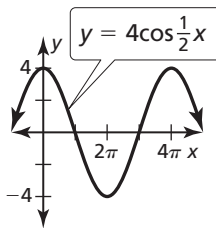
3. $g(x) = \frac{1}{4} \tan 2\pi x$

4. $g(x) = \frac{1}{3} \cot \pi x$

5. Describe and correct the error in describing the transformation of $f(x) = \tan x$ represented by $g(x) = 4 \tan \frac{1}{2}x$.
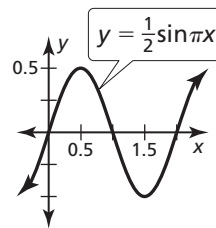
> ✗ A vertical stretch by a factor of 4 and a horizontal shrink by a factor of $\frac{1}{2}$

6. Use the given graph to graph each function.

a. $f(x) = 4 \sec \frac{1}{2}x$

b. $f(x) = \frac{1}{2} \csc \pi x$

$y = 4\cos\frac{1}{2}x$

$y = \frac{1}{2}\sin\pi x$

In Exercises 7–10, graph one period of the function. Describe the graph of *g* as a transformation of the graph of its parent function.

7. $g(x) = \frac{1}{3} \csc \pi x$

8. $g(x) = \frac{1}{2}\sec 6x$

9. $g(x) = \sec \frac{\pi}{2}x$

10. $g(x) = \csc \frac{\pi}{3}x$