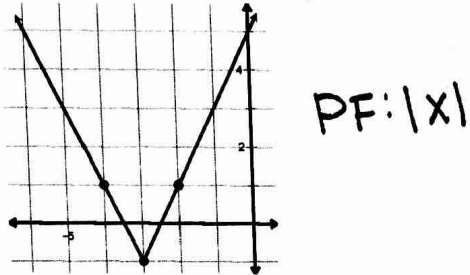
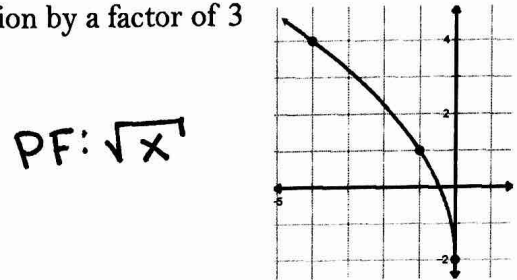


4.4 - 4.6 Mixed Review - Answers

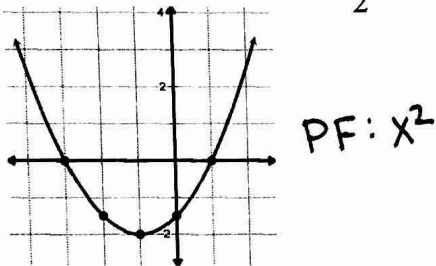
1. left 3, down 1, vertical dilation by a factor of 2



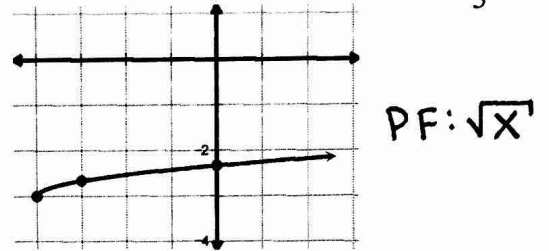
2. Reflection over the y-axis, down 2, vertical dilation by a factor of 3



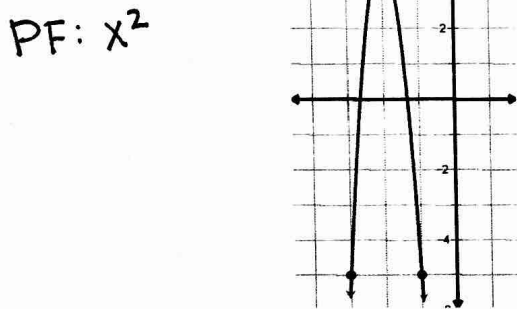
3. left 1, vertical dilation by a factor of $\frac{1}{2}$,
down 2



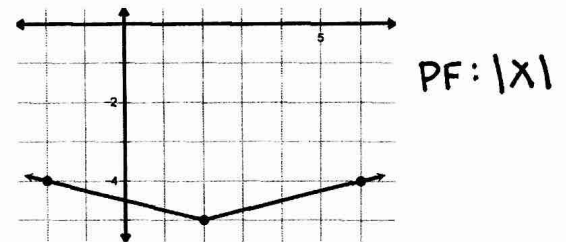
4. left 4, down 3, vertical dilation by a factor of $\frac{1}{3}$



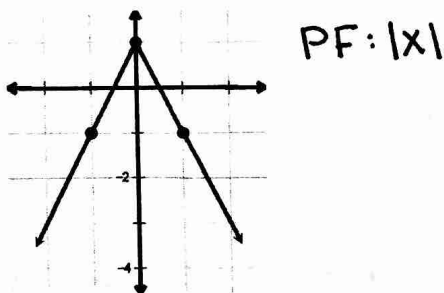
5. left 2, up 4,
horizontal dilation by a factor of $\frac{1}{3}$,
reflection over the x-axis



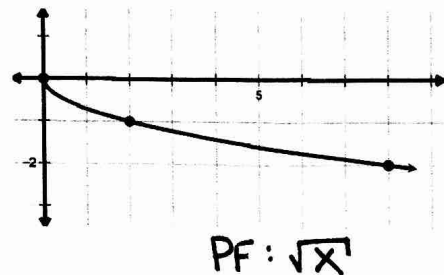
6. right 2, horizontal dilation by a factor of 4,
down 5

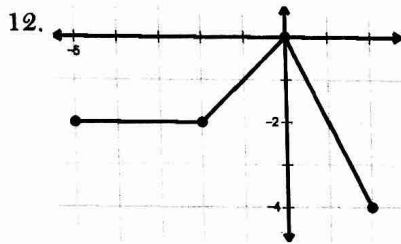
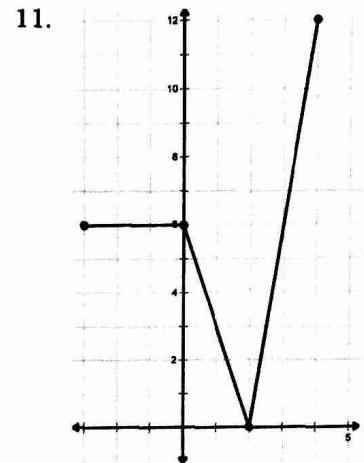
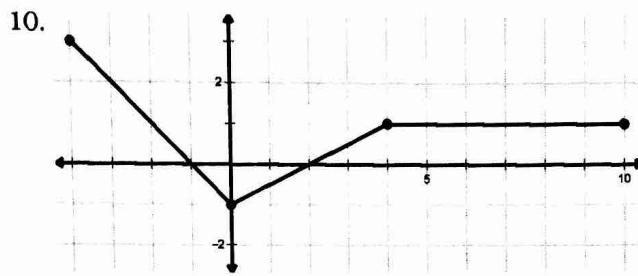
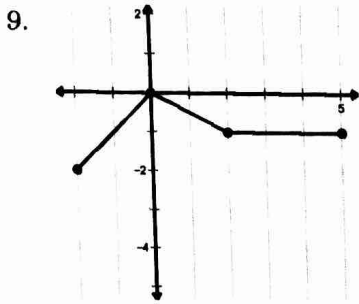


7. horizontal dilation by a factor of $\frac{1}{2}$, up 1,
reflection over the x-axis



8. horizontal dilation by a factor of 2, reflection
over the x-axis





13. $y = -2g(x)$

14. $y = g(x-4) - 3$

15. $y = g\left(\frac{1}{3}(x+1)\right)$

16. $f(x) = |x|$ left 3, down 4 $g(x) = |x+3| - 4$

17. $f(x) = \sqrt{x}$ reflection over the x -axis, left 2, vertical dilation by a factor of 3 $g(x) = -3\sqrt{x+2}$

18. $f(x) = |x|$ reflection over the x -axis, vertical dilation by a factor of 2 $g(x) = -2|x|$

19. $f(x) = \sqrt{x}$ right 1, horizontal dilation by a factor of 2, vertical dilation by a factor of 2
 $g(x) = 2\sqrt{\frac{x-1}{2}}$

20. $f(x) = |x|$ right 2, horizontal dilation by a factor of 4 $g(x) = \left|\frac{x-2}{4}\right|$

21. $f(x) = x^2$ right 1, down 3, vertical dilation by a factor of 2 $g(x) = 2(x-1)^2 - 3$

22. $f(x) = \sqrt{x}$ up 3, horizontal dilation by a factor of 2 $g(x) = \sqrt{\frac{x}{2}} + 3$

23. $f(x) = x^2$ left 3, up 2, vertical dilation by a factor of 3 $g(x) = 3(x+3)^2 + 2$

24. a) $(-9, -4)$ b) $(3, -5)$ c) $(-3, -7)$

25. a) $w = 7(x-7)^3 + 9$ c) $w = \frac{2x-4}{3} - 5$

b) $w = \frac{(x+2)^2 - 2}{3}$