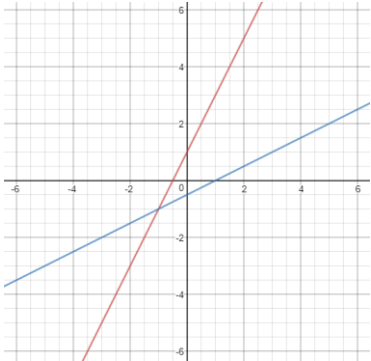
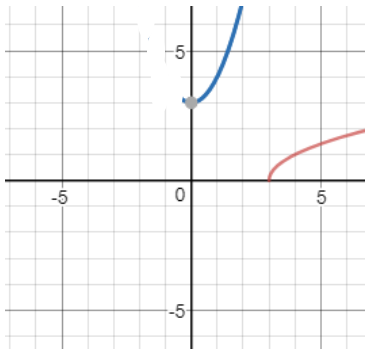
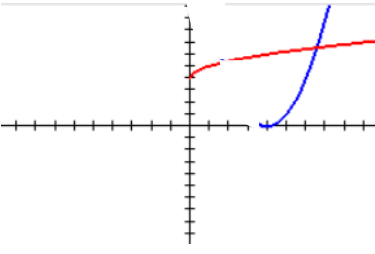


## Unit 8 Review Key

<p>1. D 2. C 3. A 4. D 5. A 6. D 7. C 8. A 9. <math>3x^2 + 5x - 2</math> <math>D: \mathbb{R}</math> 10. <math>x^2 - 5x - 14</math> <math>D: \mathbb{R}</math> 11. <math>\frac{(x+3)}{2}</math> <math>D: x \neq -2</math> 12. <math>\frac{1}{x-2}</math> <math>D: x \neq \pm 2</math> 13. <math>8x^2 + 32x + 24</math> <math>D: \mathbb{R}</math> 14. <math>2x^2 + 10x + 16</math> <math>D: \mathbb{R}</math></p>	<p>15. a. <math>g(x) = 5x + 2</math> b. Show <math>f(g(x)) = x</math> and <math>g(f(x)) = x</math> 16. 4 17. 1 18. <math>\frac{1}{27}</math> 19. <math>\sqrt{-17}</math> 20. D left 2, down 2 21. B right 2, up 2 22. A reflected over y, left 2, up 2 23. C reflected over x, right 2, down 2</p>
<p>24. <math>f^{-1}(x) = \frac{1}{2}x - \frac{1}{2}</math> Domain of <math>f = \mathbb{R}</math> Range of <math>f = \mathbb{R}</math> Domain of <math>f^{-1} = \mathbb{R}</math> Range of <math>f^{-1} = \mathbb{R}</math></p> 	<p>25. <math>f^{-1}(x) = x^2 + 3</math> Domain of <math>f = x \geq 3</math> Range of <math>f = y \geq 0</math> Domain of <math>f^{-1} = x \geq 0</math> Range of <math>f^{-1} = y \geq 3</math></p> 
<p>26. <math>f^{-1}(x) = \sqrt{x} + 4</math> Domain of <math>f = x \geq 4</math> Range of <math>f = y \geq 0</math> Domain of <math>f^{-1} = x \geq 0</math> Range of <math>f^{-1} = y \geq 4</math></p> 	<p>27. <math>6x \cdot \sqrt{2x}</math> 28. <math>\frac{x^2 \cdot \sqrt{5x}}{15}</math> 29. <math>6 \cdot \sqrt[3]{2}</math> 30. <math>\frac{6 \cdot \sqrt{5}}{5}</math> 31. <math>x = 12</math> 32. <math>x = 11</math> 33. <math>x = -3</math> 34. 52 ft. 35. \$1434.95</p>