ANSWER KEY

[1] A

[2] C

[3] C

[4] D

[5] B

[6] D

[7] B

[8] D

[9] D

[10] B

[11] B

[12] B

[13] C

[14] C

[15] B

[16] D

[17] B

[18] B

[19] A

[20] C

[21] 6 hr

[22] 20.4

[23] $-6-3i$

[24] $-\frac{1}{3}$

[25] 0.34

[26] $g(f(2)) = 6$

[27] 30.1 m^2

ANSWER KEY

[28] $\dfrac{13 \pm i\sqrt{83}}{14}$

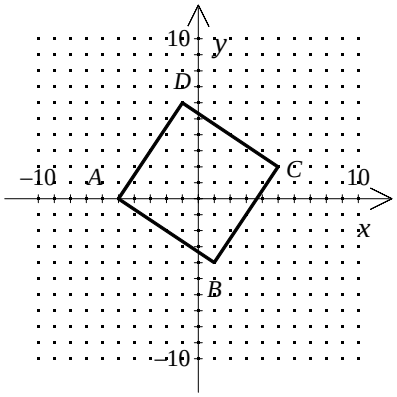
[29] $f(x) = 310(1.16)^x$; 651

[30] $\dfrac{(x-1)^2}{2} - \dfrac{(y+2)^2}{3} = 1$; The figure is a hyperbola.

[31] 4.5

[32] $0.3x^3 + 0.8x^2 + 0.2x$; 498.3 thousand

[33] $A = 47.4°$, $B = 74.4°$, $C = 58.2°$



[34]

1. Quadrilateral $ABCD$ with $A(-5, 0)$, $B(1, -4)$, $C(5, 2)$, $D(-1, 6)$	1. Given
2. slope of $\overline{AB} = \dfrac{-4-0}{1-(-5)} = -\dfrac{2}{3}$ slope of $\overline{BC} = \dfrac{2-(-4)}{5-1} = \dfrac{3}{2}$ slope of $\overline{CD} = \dfrac{6-2}{-1-5} = -\dfrac{2}{3}$ slope of $\overline{AD} = \dfrac{0-6}{-5-(-1)} = \dfrac{3}{2}$	2. Definition of slope
3. $AB \perp BC$, $BC \perp CD$, $CD \perp AD$, $AD \perp AB$	3. Any two lines whose slopes are negative reciprocals are $\perp$.
4. $\angle ABC$, $\angle BCD$, $\angle CDA$, and $\angle DAC$ are right angles.	4. Definition of $\perp$
5. $ABCD$ is a rectangle	5. Definition of a rectangle