ANSWER KEY

[1] B

[2] C

[3] B

[4] C

[5] C

[6] C

[7] C

[8] D

[9] D

[10] A

[11] C

[12] A

[13] B

[14] A

[15] A

[16] C

[17] D

[18] C

[19] B

[20] D

[21] $1\frac{2}{3}$ hr

[22] 14.3

[23] $-7-2i$

[24] $-\frac{15}{14}$

[25] 0.135

[26] $g(f(-1)) = 5$

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[27] $177.5\ \text{m}^2$

[28] $\dfrac{3 \pm i\sqrt{159}}{14}$

[29] $f(x) = 260(0.9)^x$; 154

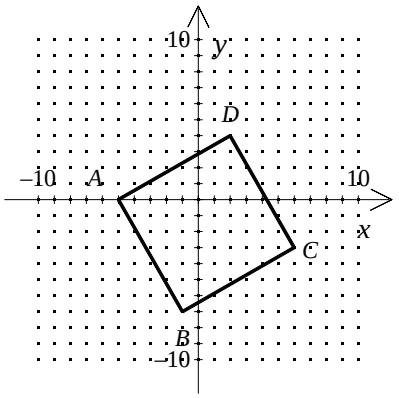
[30] $(x+6)^2 + (y-1)^2 = 6$; The figure is a circle.

[31] 13.1

[32] $0.5x^3 + 0.6x^2 + 0.2x - 0.2$; 740.1 thousand

[33] $A = 130.5°$, $B = 27.1°$, $C = 22.3°$

[34]



1. Quadrilateral $ABCD$ with $A(-5, 0)$, $B(-1, -7)$, $C(6, -3)$, $D(2, 4)$	1. Given
2. slope of $\overline{AB} = \dfrac{-7-0}{-1-(-5)} = -\dfrac{7}{4}$ slope of $\overline{BC} = \dfrac{-3-(-7)}{6-(-1)} = \dfrac{4}{7}$ slope of $\overline{CD} = \dfrac{4-(-3)}{2-6} = -\dfrac{7}{4}$ slope of $\overline{AD} = \dfrac{0-4}{-5-2} = \dfrac{4}{7}$	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