

ANSWER KEY

- [1] C
- [2] B
- [3] D
- [4] C
- [5] C
- [6] A
- [7] B
- [8] C
- [9] D
- [10] A
- [11] A
- [12] A
- [13] D
- [14] B
- [15] B
- [16] B
- [17] C
- [18] A
- [19] B
- [20] B
- [21] $4\frac{4}{11}$ hr
- [22] 13.1
- [23] $7 - 7i$
- [24] $-\frac{7}{16}$
- [25] 0.34
- [26] $f(g(2)) = 15$

ANSWER KEY

[27] 7.34 m^2

[28] $\frac{1 \pm i\sqrt{139}}{14}$

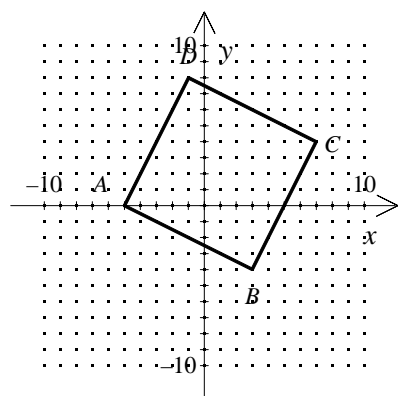
[29] $f(x) = 220(1.2)^x$; 547

[30] $\frac{(x+2)^2}{3} + \frac{(y-5)^2}{2} = 1$; The figure is an ellipse.

[31] 9.2

[32] $0.5x^3 + 0.3x^2 + 0.4x - 0.5$; 705.7 thousand

[33] $A = 60.6^\circ$, $B = 78.6^\circ$, $C = 40.8^\circ$



1. Quadrilateral $ABCD$ with $A(-5, 0)$,

$B(3, -4)$, $C(7, 4)$, $D(-1, 8)$

2. slope of $\overline{AB} = \frac{-4 - 0}{3 - (-5)} = -\frac{1}{2}$

slope of $\overline{BC} = \frac{4 - (-4)}{7 - 3} = 2$

slope of $\overline{CD} = \frac{8 - 4}{-1 - 7} = -\frac{1}{2}$

slope of $\overline{AD} = \frac{0 - 8}{-5 - (-1)} = 2$

3. $AB \perp BC$, $BC \perp CD$,

$CD \perp AD$, $AD \perp AB$

4. $\angle ABC$, $\angle BCD$, $\angle CDA$, and

$\angle DAC$ are right angles.

[34] 5. $ABCD$ is a rectangle

1. Given

2. Definition of slope

3. Any two lines whose slopes are negative reciprocals are \perp .

4. Definition of \perp

5. Definition of a rectangle