Attendance Quiz 7

Name: ___________________________ Date: ____________

1. Find the distance between the points: (2,−1) and (−10,−6).

2. Find an equation of the circle passing through (−5,2) with center (−2,3).

3. (a) Find the slope of the line that passes through (2,−3) and (−4,−8).
(b) Find the slope-intercept form of the line that passes through (2,−3) and (−4,−8).

4. Find an equation of the horizontal line that passes through (4,3).

5. Find an equation of the vertical line that passes through (5,0).

6. Find a slope-intercept form of the line that passes through (−3,4) with slope -2.

7. Find a slope-intercept form of the line that passes through the points (−1,−2) and (3,2).

8. Find a slope-intercept form of the line that passes through the points (−2,2) and is parallel to the line \(x − 2y − 8 = 0\).

9. Find a point-slope form of the line that passes through the points (−2,−4) and is perpendicular to the line \(3x + y − 22 = 0\).

10. Sketch the straight line defined by the linear equation by finding the \(x\)- and \(y\)-intercept: \(3x + 2y = −6\)

11. Solve the system by elimination method

\[
\begin{align*}
-4x - 6y &= 2 \\
5x + 2y &= -19
\end{align*}
\]
12. A server purchased at a cost of $6,000 in 2010 has a scrap value of $3,000 at the end of 6 yr. If the straight-line method of depreciation is used,

(a) Find the rate of depreciation.
(b) Find the linear equation expressing the server’s book value at the end of $t$ yr.
(c) Sketch the graph of the function of part (b).
(d) Find the server’s book value at the end of the third year.

\[ f(x) = mx + b \]
\[ y - y_1 = m(x - x_1) \]
\[ m = \frac{y_2 - y_1}{x_2 - x_1} \]
\[ d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2} \]
\[ (x - h)^2 + (y - k)^2 = r^2 \]