What are we learning in the Algebra Concepts Chapter 13?
**Please indicate how you feel about the required topics in this unit. **

| Objective | Example | Answer | Rating |
| :---: | :---: | :---: | :---: |
| Interpret and apply any of the vocabulary | x-intercept $\bullet y$-intercept $\bullet$ slope $\bullet$ pe altitude $\bullet$ point slope form $\bullet$ standar vertical line $\bullet$ horizontal line $\bullet$ | dicular • parallel • median • orm • slope intercept form • defined slope $\bullet$ distance | $\bigcirc \bigcirc \cdot{ }^{-} \times$ |
| Graph a line from any form | a. Graph $y=-\frac{5}{2} x+7$ <br> b. Graph $5 x-6 y=-60$ <br> c. Graph $y-4=\frac{1}{3}(x+2)$ |  | $\bigcirc \bigcirc \geqslant$ |
| Write an equation of a line in any form | a. Write the equation of the line through $(-2,3)$ and $(8,-5)$. <br> b. Write the equation of the line perpendicular to <br> $5 x-6 y=-60$ and through $(-4,17)$. <br> c. Write the equation of the line parallel to $y-4=\frac{1}{3}(x+2)$ and through the x -intercept of $5 x-6 y=-60$. | a. $y+5=-\frac{4}{5}(x-8)$ or $y-3=-\frac{4}{5}(x+2)$ <br> b. $y-17=-\frac{6}{5}(x+4)$ <br> c. $y-0=\frac{1}{3}(x+12)$ |  |
| Solve a system of equations that has multiple solutions | Solve for x and y : $\left\{\begin{array}{c} (x-3)^{2}+(y+5)^{2}=49 \\ y=3 x-4 \end{array}\right.$ | $\begin{aligned} & \left(\frac{\sqrt{390}}{10}, \frac{3 \sqrt{390}}{10}-4\right) \text { and } \\ & \left(-\frac{\sqrt{390}}{10},-\frac{3 \sqrt{390}}{10}-4\right) \end{aligned}$ | () ${ }^{\text {P }} \times$ |
| Write an equation of a median in a triangle | Triangle ABC has coordinates $\mathrm{A}(-1,-3)$, $B(2,10)$, and $C(5,4)$. Write an equation for the median from C . | $\begin{aligned} & y-\frac{7}{2}=\frac{1}{9}\left(x-\frac{1}{2}\right) \text { or } \\ & y-4=\frac{1}{9}(x-5) \end{aligned}$ | $\bigcirc \bigcirc \geqslant$ |


| Find the length of an altitude of a triangle | Triangle ABC has coordinates $\mathrm{A}(1,-8)$, $B(2,10)$, and $C(5,4)$. Find the length of the altitude from $B$. | $\frac{3 \sqrt{10}}{2}$ |  |
| :---: | :---: | :---: | :---: |
| Compute the distance between two lines | Find the distance between $y=\frac{1}{3} x+4$ and $y=\frac{1}{3} x+6$. | $\frac{3 \sqrt{10}}{5}$ | $\left.\bigcirc \bigcirc{ }^{( }\right)$ |
| Complete the square to write the equation of a circle in standard form | Write the standard form equation of the circle $x^{2}+y^{2}-16 x-6 y=62$ and identify the center and radius. | $(x-8)^{2}+(y-3)^{2}=135$ <br> Center: $(8,3)$ $\text { Radius }=3 \sqrt{15}$ | $\bigcirc \bigcirc{ }^{-} \times$ |
| Find the length of the common internal or external tangents | Find the length of the common external tangent between the two circles $\begin{aligned} & (x-4)^{2}+(y+3)^{2}=36 \text { and } \\ & (x+1)^{2}+(y-5)^{2}=9 . \end{aligned}$ |  | $\bigcirc \bigcirc \bigcirc$ |

