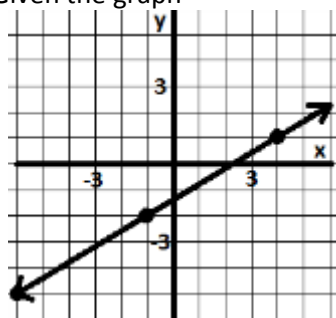
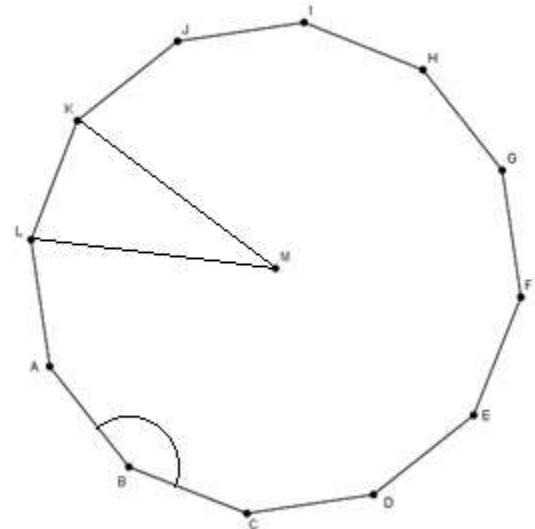


Given the graph, table or equation, write the point-slope equation of the parallel and perpendicular lines.

	Parallel Line passing through the indicated point.	Perpendicular Line passing through the indicated point										
1 Given the equation:  $y = \frac{-5}{8}(x-3)+2$	Parallel and passing through $(-23,56)$	Perpendicular and passing through $(49,-75)$										
2 Given the table: <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>x</th> <th>y</th> </tr> </thead> <tbody> <tr> <td>-16</td> <td>-7</td> </tr> <tr> <td>-5</td> <td>-10</td> </tr> <tr> <td>6</td> <td>-13</td> </tr> <tr> <td>17</td> <td>-16</td> </tr> </tbody> </table>	x	y	-16	-7	-5	-10	6	-13	17	-16	Parallel and passing through $(-2,-9)$	Perpendicular and passing through $(5,13)$
x	y											
-16	-7											
-5	-10											
6	-13											
17	-16											
3 Given the graph 	Parallel and passing through $(12,-37)$	Perpendicular and passing through $(-18,-4)$										

4. Given the diagram of the regular dodecagon, determine the following.
- Use the one central angle triangle drawn in the dodecagon.
    - What is the measure of the central angle KML?
    - What is the measure of each of the other two angles (angle MKL and angle MLK) in this triangle?
  - How many lines of symmetry does this shape have...
    - passing through two vertices? Draw them.
    - passing through two midpoints? Draw them.
    - passing through a vertex and a midpoint? Draw them.
  - Angle ABC marked at vertex B is called an **interior angle**. What is the degree measure of this interior angle ABC?
  - We know that the sum of the angles of a triangle is 180 degrees. Every interior angle of this dodecagon (12-gon) is congruent. What is the sum of all of the interior angles of this regular dodecagon?



5. Graph the five lines accurately on the same coordinate axes on your graph paper. You will need the axes to allow for x between -10 and +10 and for y between -12 and +10. The lines will "fence in" a region that is a pentagon. All of the vertices of the region should lie on lattice points of the grid. **Find the perimeter of this fenced-in region leaving the answer as the sum of square roots.** Here are the equations of the five lines:

$$y = -5, \quad y = 2(x-5)-1, \quad y = \frac{-1}{3}(x-1)+5, \quad y = \frac{5}{2}(x+9)-3, \quad x = -7$$