Review



A. Parallel to the given line and passes through (-3, 6).

B. Perpendicular to the given line and passes through (-3, 6).

Graph all three lines and mark them appropriately to show which are parallel and which are perpendicular.

| 7. Write the equation of the line in slope-intercept form that is the perpendicular bisector of segment XY. $X(7, 9), Y(-3, 5)$ | 8. Write the equation of the line in slope-intercept form that is the perpendicular bisector of segment AB. $A(6, -3)$, $B(0, 5)$ |
|--|--|
| Sketch the segment and the perpendicular bisector line to show that your answer is correct. | Sketch the segment and the perpendicular bisector line to show that your answer is correct. |
| 9. Find the circumcenter of the triangle with the given vertices M(-5, 0), N(0, 14), O(0, 0) | 10. Find the orthocenter of the triangle with the given vertices J(-4, 2), K(-2, 6), L(2, 2) |
| ^{11.} \overline{QX} and \overline{RX} are angle bisectors of $\triangle PQR$. Find each measure. | 12. GP = 7x – 4, PB = 12, PC = y, and HC = 8y – 15. Find each length. |
| a. the distance from <i>X</i> to \overline{PQ} b. m $\angle PQX$ | A. GP B. GB C. HP D. HC |
| 13. Design In the plan for a table, the triangular top has coordinates $(0, 10)$, $(4, 0)$, and $(8, 14)$. The tabletop will rest on a single support placed beneath it. Where should the support be attached so that the table is balanced? | |
| 14. Find each R length. | 15. Find each length |
| RP L 3x - 11 | QS R = 2x - 10 R = 2x - 10 |
| LK 2 <i>x</i> - 11 | RH $2x-7$ H |
| QK $Q \xrightarrow{K} P$ | QR $2x+4$ S |
| 16. Sketch each line on the same graph. Use slope to determine if any of the lines are parallel or perpendicular and mark them to show if they are parallel or perpendicular. | 17. Draw four triangles so that you can construct each of the following points of concurrency.Orthocenter |
| A. $3y - 4x = -21$ | |
| | - Centroid |
| B. $4y + 3x = 4$ | Centroid Incenter (and inscribled triangle) |
| B. $4y + 3x = 4$ C. $3y - x = 6$ | Centroid Incenter (and inscribled triangle) Circumcenter (and circumscribed triangle) |
| B. $4y + 3x = 4$ C. $3y - x = 6$ D. $4y + 3x = -20$ | Centroid Incenter (and inscribled triangle) Circumcenter (and circumscribed triangle) |
| B. $4y + 3x = 4$ C. $3y - x = 6$ D. $4y + 3x = -20$ E. $x = 5$ | Centroid Incenter (and inscribled triangle) Circumcenter (and circumscribed triangle) |