Geometry

Section 3.1 Exploring Line and Planes

Name:
Date:
Period

Theorem 3.1 Transitivity of Parallel Lines:
If two lines are parallel to the same line, then they are parallel to each other.

Draw a Visual of the Theorem Below:

Mr. Sirimanne's Visual:

Theorem 3.2 Property of Perpendicular Lines:
If two coplanar lines are perpendicular to the same line, then they are parallel to each other.

Draw a Visual of the Theorem Below:

Mr. Sirimanne's Visual:

Postulate 12: If two distinct lines intersect, then their intersection is exactly one point.

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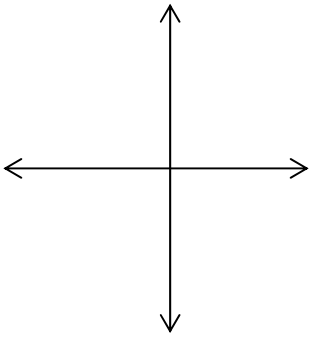
1. Find a line parallel to y = -6 x + 2 and through point (2,1)



Postulate 13 Parallel Postulate: If there is a line and a point not on the line, then there is exactly one line through the point parallel to the given line.

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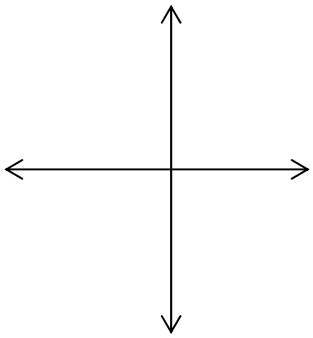
2. Find a perpendicular line to y = -6 x + 3 through the point (0,-4)



Postulate 14 Perpendicular Postulate: If there is a line and a point not on the line, then there is exactly one line through the point perpendicular to the given line.