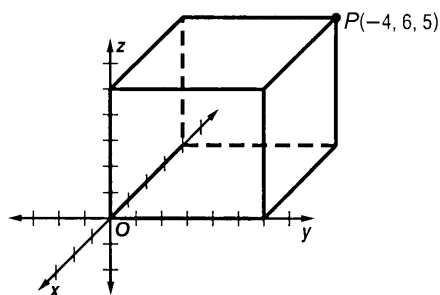


13-5 Study Guide and Intervention

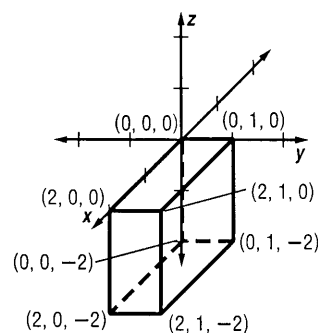
Coordinates in Space

Graph Solids in Space In space, you can describe the location of a point using an **ordered triple** of real numbers. The x -, y -, and z -axes are perpendicular to each other, and the coordinates for point P are the ordered triple $(-4, 6, 5)$. A rectangular prism can be drawn to show perspective.



Example Graph the rectangular solid that contains the ordered triple $(2, 1, -2)$ and the origin. Label the coordinates of each vertex.

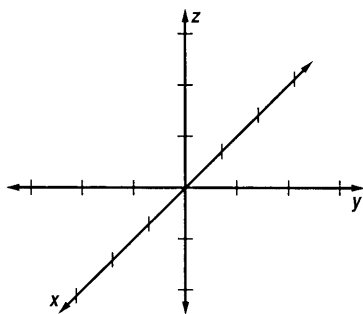
- Plot the x -coordinate first. Draw a solid segment from the origin 2 units in the positive direction.
- Plot the y -coordinate next. Draw a solid segment 1 unit in the positive direction.
- Plot the z -coordinate next. Draw a solid segment 2 units in the negative direction.
- Draw the rectangular prism, using dotted lines for hidden edges of the prism.
- Label the coordinates of each vertex.



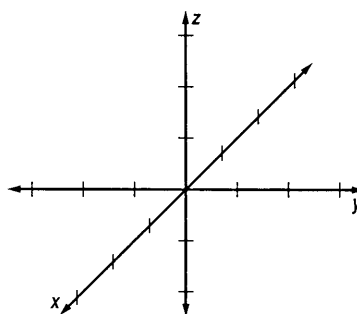
Exercises

Graph the rectangular solid that contains the given point and the origin as vertices. Label the coordinates of each vertex.

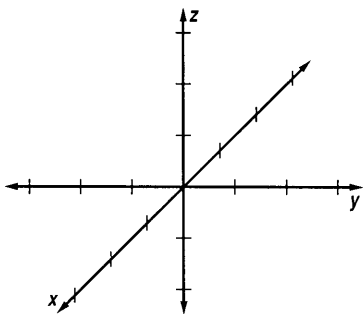
1. $A(2, 1, 3)$



2. $G(-1, 2, 3)$



3. $P(-2, 1, -1)$



4. $T(-1, 3, 2)$

