

Show work neatly. Simplify all answers.

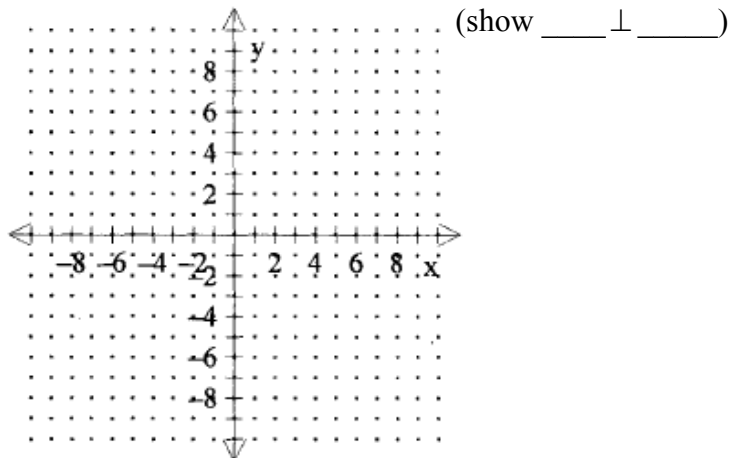
1. Given the points  $A(-3, 2)$  and  $B(-5, 7)$ , find:

a. the length of  $\overline{AB}$

b. the midpoint of  $\overline{AB}$

c. the slope of  $\overline{AB}$

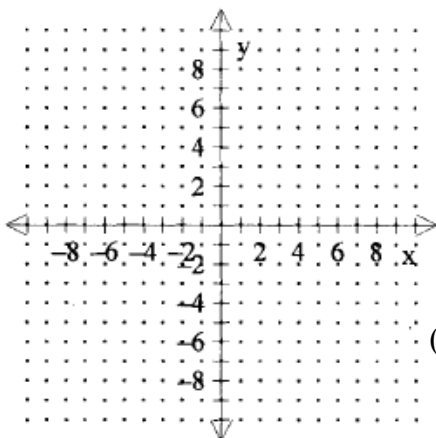
2. Given:  $\triangle RST$  with  $R(-1, 1)$ ,  $S(2, 4)$ , and  $T(5, 1)$ .  
Use slopes to show that  $\triangle RST$  is a right triangle.



3. Given: Quadrilateral  $NOPQ$  with  $N(-1, -5)$ ,  $O(0, 0)$ ,  $P(3, 2)$ , and  $Q(8, 1)$ .

Show that  $NOPQ$  is an isosceles trapezoid.

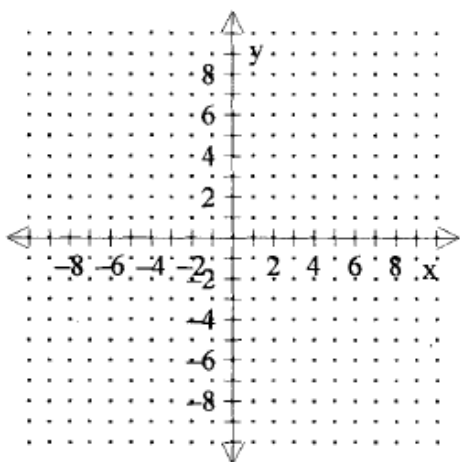
(use slope to show \_\_\_\_  $\parallel$  \_\_\_\_)



(use distance to show \_\_\_\_ = \_\_\_\_)

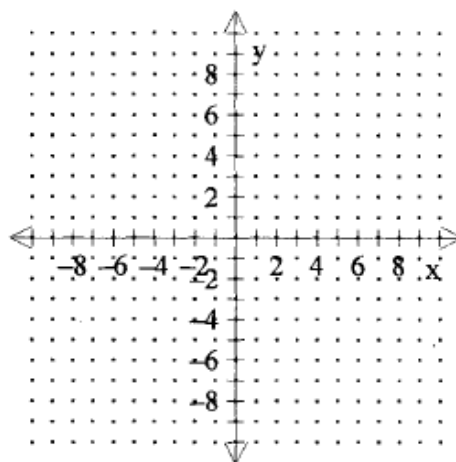
4. Graph a line through  $(-2, 3)$  with slope  $\frac{3}{2}$ .

Name another point on the line.



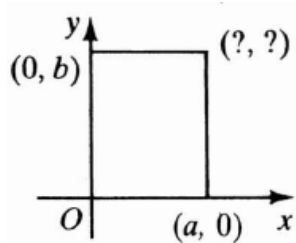
5. Graph a line through  $(6, 5)$  with slope  $-4$ .

Name another point on the line.

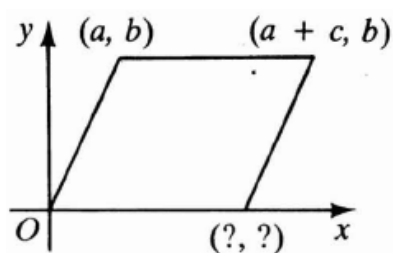


Supply the missing coordinates without introducing any new letters.

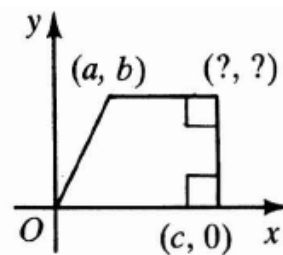
6. rectangle



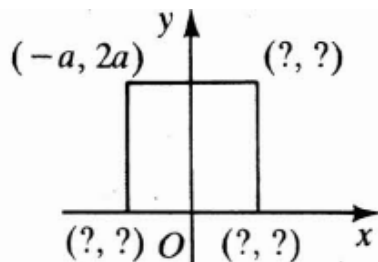
7. parallelogram



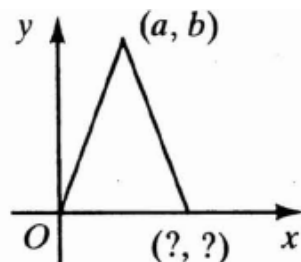
8. trapezoid



9. square



10. isosceles triangle



11. isosceles trapezoid

