

1.2

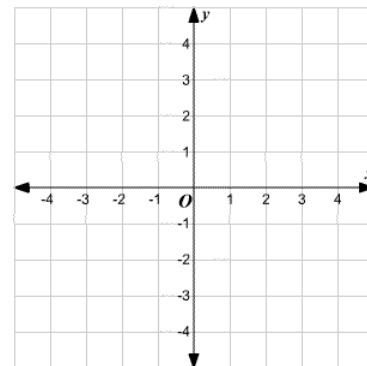
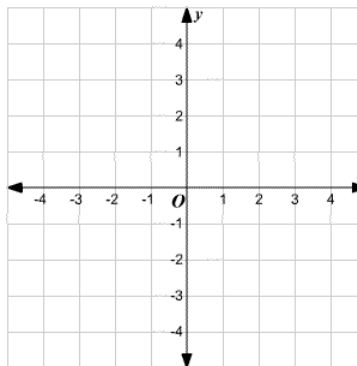
Assignment

Part A

In Exercises 3–5, plot the points in a coordinate plane. Then determine whether \overline{ST} and \overline{UV} are congruent.

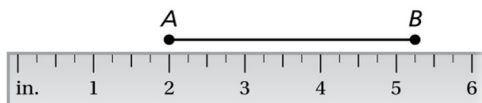
3. $S(-1, 2), T(-1, 1), U(3, -5), V(3, -2)$

4. $S(1, -1), T(1, 1), U(3, -4), V(5, -4)$



9. Describe and correct the error in finding the length of \overline{AB} .

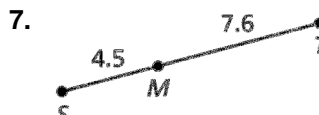
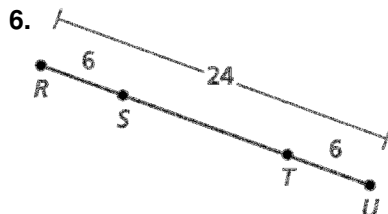
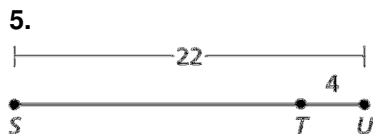
$\times \quad |AB| = |1 - 5.25| = 4.25$



10. A man is 76 inches tall. The length from his head to his shoulders is 14 inches, and the length from his waist to his shoulders is 30 inches. What is the length from his feet to his waist? (Write an equation to solve.)

Part B

In Exercises 5–7, find ST . Justify your answer with an equation.



8. The 2014 Winter Olympic Games were held in Sochi, Russia. The distance between Washington, DC and Rome, Italy is about 4480 miles. The distance between Washington, DC and Sochi, Russia is about 5500 miles. What is the distance between Rome, Italy and Sochi, Russia? Justify your answer.



In Exercises 9 and 10, point B is between A and C on \overline{AC} . Use the information to write an equation in terms of x . Then solve the equation and find AB , BC , and AC .

9. $AB = 13 + 2x$

$$BC = 12$$

$$AC = x + 32$$

10. $AB = 8x + 5$

$$BC = 5x - 9$$

$$AC = 74$$

11. You participate in a 150-mile bicycle trip from Madison, Wisconsin to Chicago, Illinois. On the first day, you bike 46.8 miles. On the second day, you bike 51.4 miles. How many miles do you bike on the third day? Write an equation to find the answer.

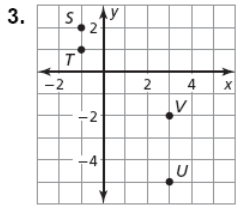
Which day did you bike the most miles?

Answers

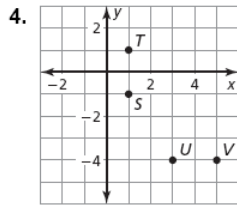
1.2 Practice A

1. $1\frac{1}{4}$ in.

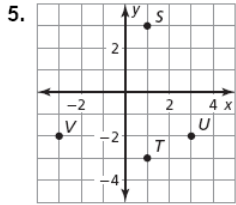
2. $2\frac{5}{8}$ in.



no



yes



yes

6. 8

7. 21

8. 17

9. The ruler is lined up at the 2-inch mark;

$$AB = |2 - 5.25| = 3.25$$

10. 32 in.

11. true; F is on \overline{EG} between E and G .

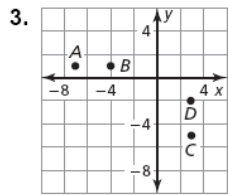
12. true; C is on \overline{BD} between B and D .

13. false; A , B , and F are not collinear.

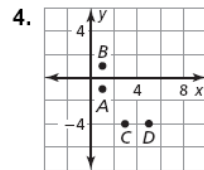
1.2 Practice B

1. $\frac{7}{8}$ in.

2. $2\frac{1}{8}$ in.



yes



yes

5. 18

6. 12

7. 12.1

8. about 1020 mi

9. $2x + 25 = x + 32$; $x = 7$; $AB = 27$; $BC = 12$;
 $AC = 39$

10. $13x - 4 = 74$; $x = 6$; $AB = 53$; $BC = 21$;
 $AC = 74$

11. 51.8 mi; the third day