Geometry   Name : _____
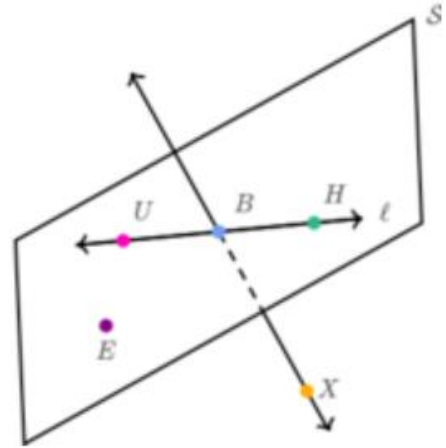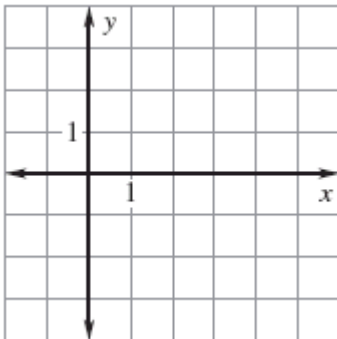Section 1.1 – 1.3 Review Extra Practice

Use the diagram below to answer questions #1 – 5.

1. Please give two other names for $\overleftrightarrow{UB}$.

2. Please give another name for Plane UBE.

3. Please give another name for $\overrightarrow{HB}$.

4. Please name the intersection of plane S and $\overleftrightarrow{BX}$.
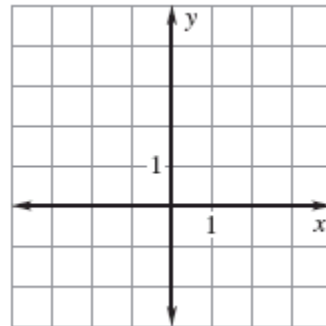
5. Please name three collinear points.

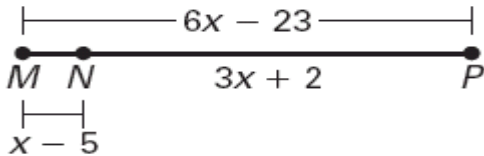**Plot the given points in a coordinate plane. Then determine whether the line segments named are congruent.**

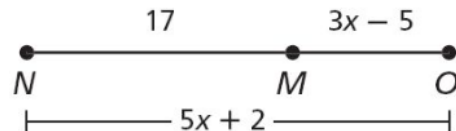6. $A(2, 2)$, $B(4, 2)$, $C(-1, -1)$, $D(-1, 1)$;
   $\overline{AB}$ and $\overline{CD}$

7. $E(-3, 4)$, $F(-1, 4)$, $G(2, 4)$, $H(-1, 4)$;
   $\overline{EF}$ and $\overline{GH}$

8. Find *NP.*

6x − 23
M N   3x + 2   P
x − 5

9. Find *NO.*

17   3x − 5
N   M   O
5x + 2

Point _J_ is between _H_ and _K_ on $\overline{HK}$. Use the given information to write an equation in terms of _x._ Solve the equation. Then find _HJ_ and _JK_.

10.   _HJ_ = 5x − 4
       _JK_ = 8x − 10
       _KH_ = 38

11.   _HJ_ = 5x − 3
       _JK_ = x − 9
       _KH_ = 5x

Find the coordinates of the midpoint of the segment with the given endpoints.
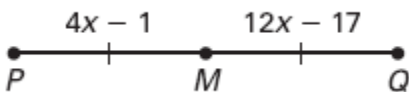
12. _A_(6, −3) and _B_(10, 5)

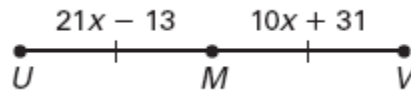13. _M_(14, 7) and _N_(−9, 1)

14. _Y_(−13, 8) and _Z_(2, −10)

15. _C_(−5, −17) and _D_(−18, 12)

In the diagram, _M_ is the midpoint of the segment. Find the indicated length.

16. Find _MQ_.

4x − 1   12x − 17

P   M   Q
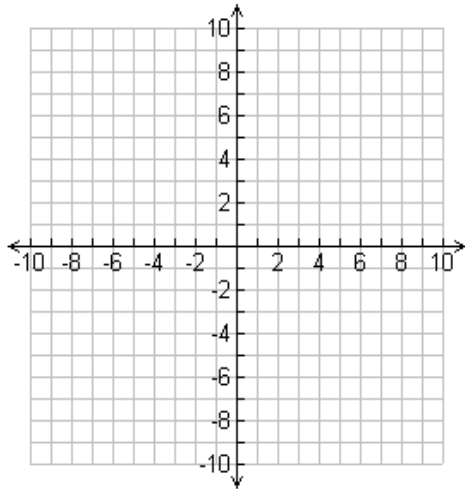
17. Find _UV_.

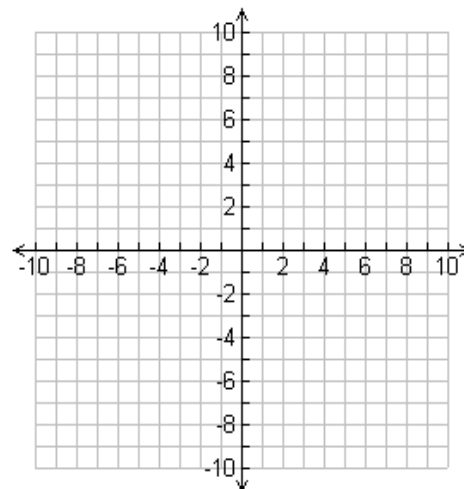21x − 13   10x + 31

U   M   V

Use the given endpoint R and midpoint M of $\overline{RS}$ to find the coordinates of the other endpoints.

18. R (6,0), M (0,2)
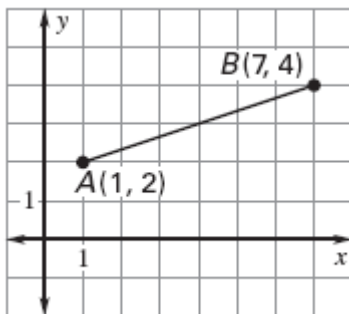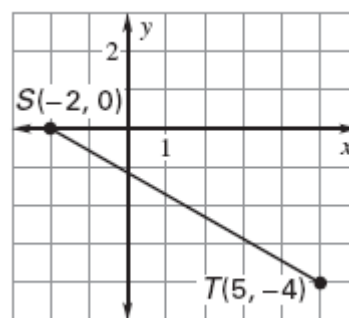
19. R (3,4), M (3, –2)

Find the length of the segment. Round to the nearest tenth of a unit.

20.

B(7, 4)

A(1, 2)

21.

S(–2, 0)

T(5, –4)

The endpoints of two segments are given. Find each segment length. Tell whether the segments are congruent.

22. $\overline{AB}$: $A(7,2), B(0, -3)$

    $\overline{CD}$: $C(-4, 12), D(-1, 4)$

23. $\overline{RS}$: $R(5, 6), S(11, -2)$

    $\overline{TU}$: $T(-7, 9), U(3, 9)$

Answer Key

1. $\overleftrightarrow{BU}, \overleftrightarrow{BH}, \overleftrightarrow{HB}, \overleftrightarrow{UH}, \overleftrightarrow{HU}$, line l 2. Plane S, Plane BHE, Plane BEH, Plane HEB, etc.

3. $\overrightarrow{HU}$ 4. Point B   5. U, B, H

6. Yes, they are congruent   7. No, they are not congruent   8. $x = 10, \ NP = 32$

9. $x = 5, \ NO = 27$ 10. $HJ = 16, \ JK = 22$ 11. $HJ = 57, \ JK = 3$

12. $(8, 1)$ 13. $(2.5, 4)$ 14. $(-5.5, -1)$

15. $(-11.5, -2.5)$ 16. $x = 2, \ MQ = 7$ 17. $x = 4, \ UV = 142$

18. $(-6, 4)$ 19. $(3, -8)$ 20. $AB \approx 6.3$

21. $ST \approx 8.1$ 22. No, they are not congruent   23. Yes, they are congruent