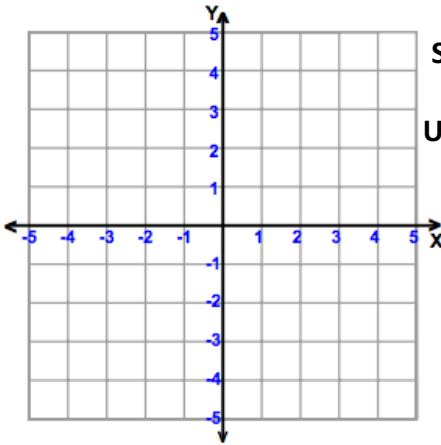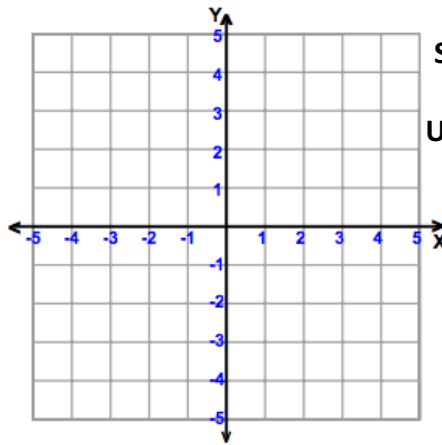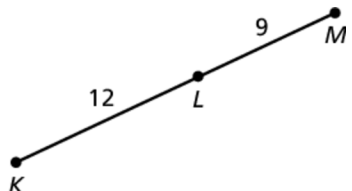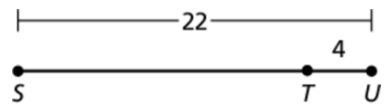Geometry
1.2 worksheet #2

Name: _____

Plot the points in a coordinate plane. Then determine whether $\overline{ST}$ and $\overline{UV}$ are congruent.

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

ST = _____ units

UV = _____ units

Is $\overline{ST} \approx \overline{UV}$?

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

ST = _____ units

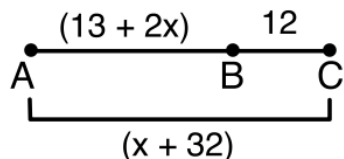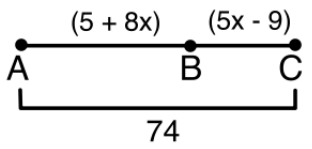UV = _____ units

Is $\overline{ST} \approx \overline{UV}$?

Write a segment addition postulate for each segment. Then find the stated length.

3. Find *KM*.

9
M
12
L
K

4. Find *ST*.

|————22————|
4
S   T U

5. 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?

Sochi, Russia
Rome, Italy
Washington, DC   ATLANTIC
OCEAN
Mediterranean Sea

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*.

6.

(13 + 2x)   12
A   B   C
(x + 32)

Equation:

x = _____   AB = _____ BC = _____ AC = _____

7.

(5 + 8x)   (5x - 9)
A   B   C
74

Equation:

x = _____   AB = _____ BC = _____ AC = _____