Geometry   Name:_____
Wkst 1.1 – Segment and Angle Addition Postulate

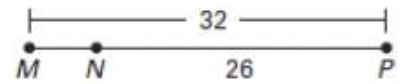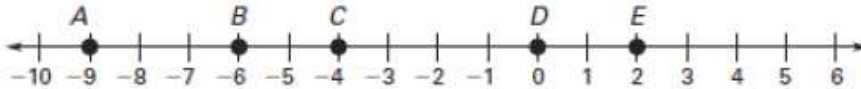**Use the Segment Addition Postulate to find the indicated length.**

1. Find RT.   2. Find BC.   3. Find MN.

R 17 S 8.5 T

A 25 B —54— C

M N —32— 26 P
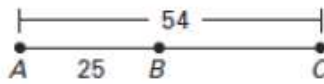
Use the number line to find the indicated distance.

A ... B C ... D E

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6

4. $AB =$ 4. $BD =$ 6. $CE =$ 7. $DE =$

Find the indicated length.

8. Find AC

A 14 B $3x - 4$ C , with $4x + 4$ above.
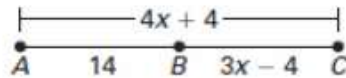
Point J is between H and K on HK. Use the given information to write an equation in terms of x.
Solve the equation. Then find HJ and JK.

9. $HJ = 2x$
   $JK = 3x$
   $KH = 25$

C is between A and E. For each problem, draw a picture representing the three points and the information given. Solve for indicated.
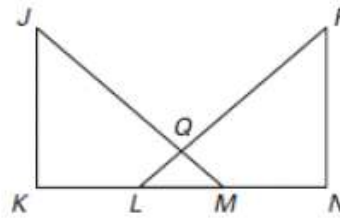
3. If $AC = 24$ in. and $CE = 13$ in., $AE =$ _____.   4. If $CE = 7$ in. and $AE = 23$ in., $AC =$ _____.

Give another name for the angle in the diagram. Tell whether the angle appears to be acute, obtuse, right, or straight.
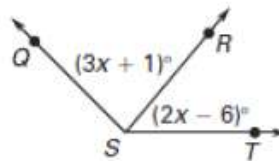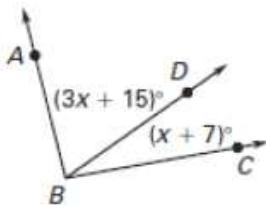
10. $\angle JKN$ 11. $\angle KMN$

12. $\angle PQM$ 13. $\angle JML$

Use the given information to find the indicated angle measure.

14. Given $m\angle ABC = 94°$, find $m\angle CBD$.   15. Given $m\angle QST = 135°$, find $m\angle QSR$.

$\angle 1$ and $\angle 2$ are complementary angles and $\angle 2$ and $\angle 3$ are supplementary angles. Given the measures of $\angle 1$, find $m\angle 2$ and $m\angle 3$.
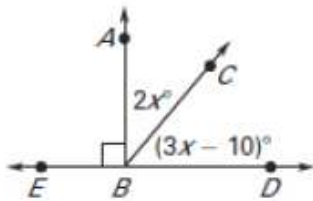
16. $m\angle 1 = 80°$ 17. $m\angle 1 = 33°$ 18. $m\angle 1 = 72°$ 19. $m\angle 1 = 7°$
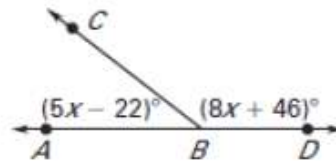
Find $m\angle ABC$ and $m\angle CBD$.

20.

21.

If U is between T and B, find the value of x and the lengths of the segments. Draw a picture, write the segment addition postulate, write an equation and solve.

TU = 4x-1, UB = 2x -1, TB = 5x

x = _____

TU = _____

UB = _____

TB = _____

Find EG