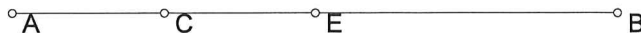


HW date _____

Segment and Angle Addition postulates

Use the figure to the right to answer questions 1 – 5.



1. If $AC = 5$ and $CB = 12$, find AB .

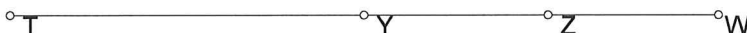
2. If $AC = 4$, $CE = 6$, and $AB = 18$, find EB

4. If E is the midpoint of AB , C is the midpoint of AE , and $AB = 28$, how long is CE ?

3. If E is the midpoint of AB , $AC = 6$, and $EB = 9$, how long is CE ?

5. If E is the midpoint of AB , C is the midpoint of AE , and $CB = 12$, how long is AC ?

For questions 6 – 11, use the figure to the right



6. If $TZ = 2x$, $ZW = 3$, and $TW = 15$, find x .

7. If $TY = 4x + 5$, $YW = 6x$, and $TW = 20$, find x

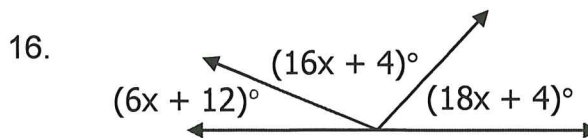
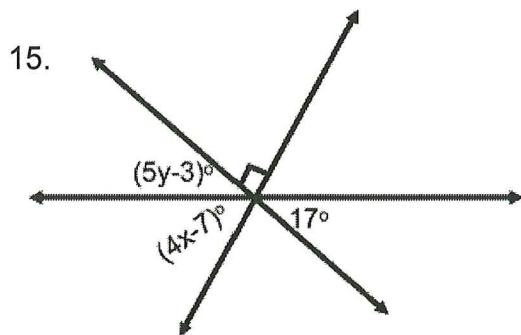
8. If Y is the midpoint of TW , $TY = 3x$ and $TW = 30$, find x .

9. If Y is the midpoint of TW , $TY = 4x - 4$ and $YW = 2x + 8$, find x .

10. If Y is the midpoint of TW , Z is the midpoint of YW , $ZW = 2x$, and $TW = 40$, find x .

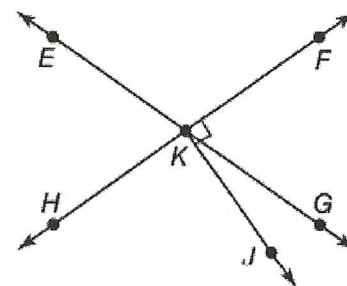
11. If Y is the midpoint of TW , Z is the midpoint of YW , $YZ = 2x - 1$, and $TW = 20$, find x .

Solve for all variables



Angle Relationships

For Exercises 1–6, use the figure at the right. Name an angle or angle pair that satisfies each condition.



1. Name two acute vertical angles.
2. Name two obtuse vertical angles.
3. Name a linear pair.
4. Name two acute adjacent angles.
5. Name an angle complementary to $\angle EKH$.
6. Name an angle supplementary to $\angle FKG$.

7. For each of the following, draw a picture to represent the given vocabulary concept.

Vertical angles	Linear pair
Complementary angles	Supplementary angles
Adjacent angles	Perpendicular lines