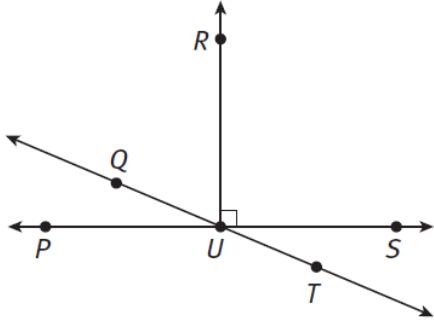


1. $\angle SUT = 35^\circ$
What is the measure of $\angle QUS$?



- A. 35 B. 55 C. 135 D. 145

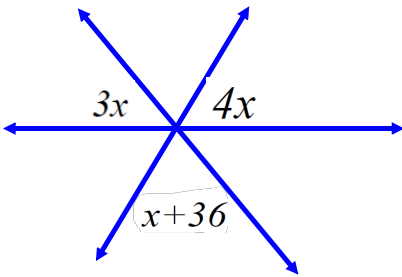
2. $\angle A$ and $\angle B$ are supplementary.
Find $m\angle A$

$$m\angle A = 6x - 1$$

$$m\angle B = 5x - 17$$

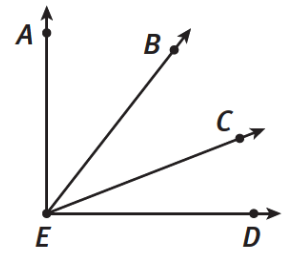
- A. 18 B. 107
C. 108 D. 136

3. Solve for x.



- A. 6
B. 12
C. 16
D. 18

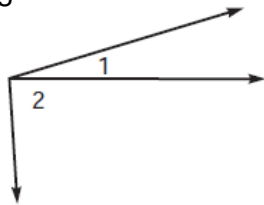
4. Given: $\vec{EA} \perp \vec{ED}$,
 \vec{EB} bisects $\angle AEC$,
 $m\angle AEB = 4x + 1$,
and $m\angle CED = 3x$.
 $m\angle CED = \underline{\quad ? \quad}$



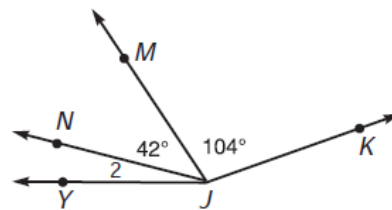
- A. 32 B. 24
C. 33 D. 25

5. Describe these two angles

- A. Complementary
B. Supplementary
C. Adjacent
D. vertical
E. Congruent



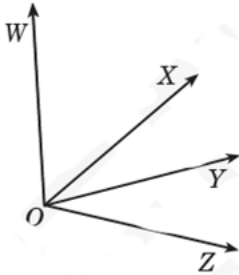
6. Find $m\angle 2$ if $m\angle YJK = 160$.



- A. 6
B. 12
C. 14
D. 16

7.

\overrightarrow{OX} is the bisector of $\angle WOZ$ and
 \overrightarrow{OY} is the bisector of $\angle XOZ$.



If $m\angle YOZ = 26.5$, what is $m\angle WOZ$?

- A 53.0
- B 79.5
- C 106.0
- D 132.5

8.

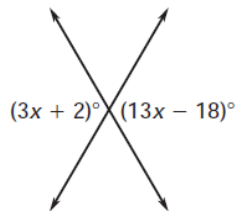
If H is in the interior of $\angle EFG$, $m\angle EFH = 75^\circ$, and
 $m\angle HFG = (10x)^\circ$, and $m\angle EFG = (20x - 5)^\circ$, then $m\angle EFG = \underline{\quad?}$.

- A. 82
- B. 124
- C. 155
- D. 180

9.

Multiple Choice Solve for x in the diagram.

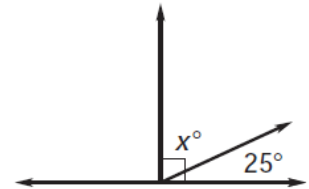
- A 2
- B 4
- C 8
- D 16
- E 1



10.

Multiple Choice Find the value of x .

- A 25
- B 50
- C 90
- D 65
- E 155



11. B is between A and C.

solve for x when $AB = 5x + 2$,
 $AC = 12x + 7$, and $BC = 26$.

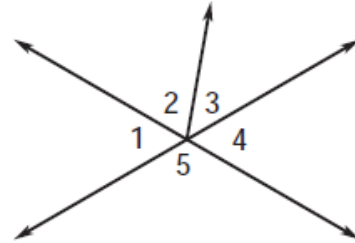
- A 1
- B 2
- C 3
- D 4
- E 5

12. Find Distance

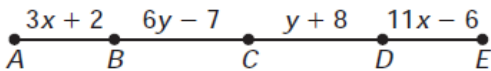
$(-5, -3), (8, -5)$

- A) 4.1
- B) 13.2
- C) 7.4
- D) 3.9

13. Which angles are vertical angles?
- (A) $\angle 1$ and $\angle 2$ (B) $\angle 1$ and $\angle 5$
 (C) $\angle 3$ and $\angle 5$ (D) $\angle 1$ and $\angle 4$
 (E) $\angle 4$ and $\angle 5$



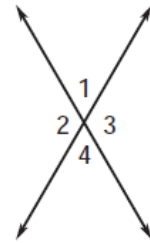
14. **Multiple Choice** In the diagram, $\overline{AB} \cong \overline{DE}$ and $\overline{BC} \cong \overline{CD}$. Find the length of \overline{CE} .



- (A) 11 (B) 22 (C) 10
 (D) 16 (E) 54°

15. **Multiple Choice** If $m\angle 3 = 126^\circ$, then $m\angle 1 = \underline{\quad ? \quad}$.

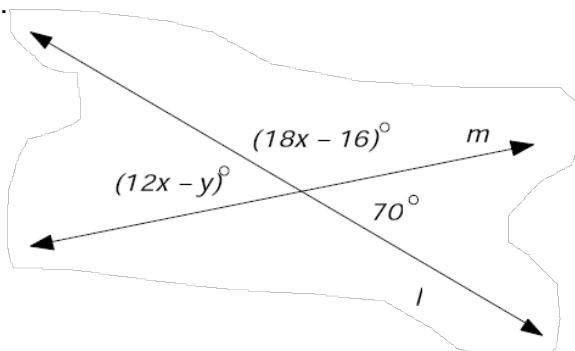
- A. 36 B. 64
 C. 126 D. 128
 E. 54



16. $\angle DFG$ and $\angle JKL$ are complementary angles. $m\angle DFG = x + 5$, and $m\angle JKL = x - 9$. Find the measure of each angle.

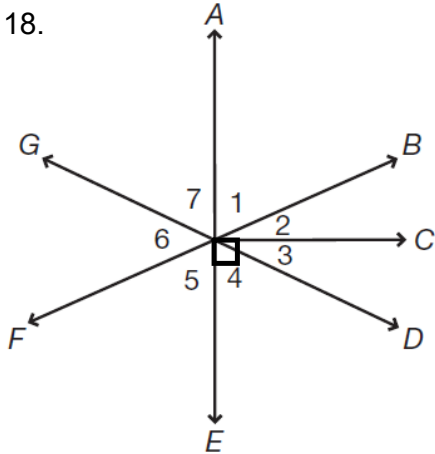
- a. $\angle DFG = 47, \angle JKL = 53$ b. $\angle DFG = 81, \angle JKL = 95$
 c. $\angle DFG = 52, \angle JKL = 148$ d. $\angle DFG = 52, \angle JKL = 38$

17.



Find the value for x

- A. 8 B. 7 C. 6 D. 4

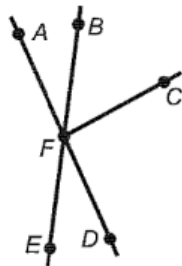


If the measure of angle 3 is $2x + 2$ and the measure of angle 4 is $5x - 10$, what is the measure of angle 7?

- a. 14°
- b. 30°
- c. 60°
- d. 90°
- e. 115°

19. Given:

\overleftrightarrow{AD} and \overleftrightarrow{BE} intersect at F .
 $m\angle AFB = 70^\circ$
 \overrightarrow{FC} bisects $\angle BFD$.



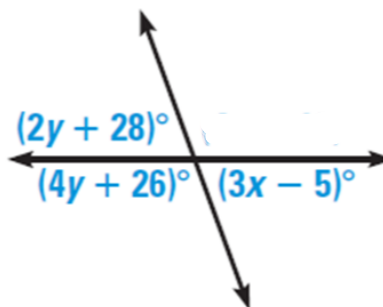
What is $m\angle DFC$?

- A. 110°
- B. 70°
- C. 55°
- D. 35°

20. Point D is in the interior of $\angle ABC$,
 $m\angle ABC = 10x - 7$, $m\angle ABD = 6x + 5$, and
 $m\angle DBC = 36^\circ$. What is $m\angle ABD$?

- A. 36 B. 51 C. 72
- D. 98 E. 77

21. Solve for y .



- A. 6
- B. 21
- C. 54
- D. 76

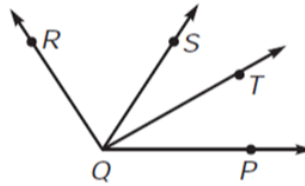
22. What does this symbol represent?



- A. congruent B. Supplementary C. Parallel
- D. Perpendicular E. Vertical

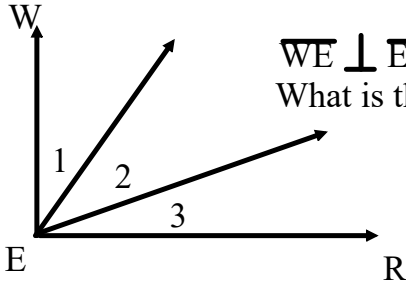
23.

If \overline{QS} bisects $\angle RQP$, $m\angle RQS = 2x + 10$, and $m\angle SQP = 3x - 18$, find $m\angle RQS$.



- A. 28
- B. 56
- C. 66
- D. 112
- E. 132

24.



$\overline{WE} \perp \overline{ER}$. If Angles 1, 2, and 3 are all congruent. What is the measure of $\angle 1 + \angle 2$?

- A.) 40
- B.) 50
- C.) 60
- D.) 70

25.

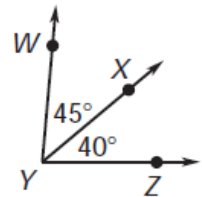
Multiple Choice What does the symbol \overline{BC} represent?

- A segment BC
- B line BC
- C point B
- D ray BC
- E ray CB

26.

Multiple Choice Find $m\angle WYZ$.

- A 5°
- B 90°
- C 85°
- D 105°
- E 175°



27.

Multiple Choice Find the midpoint of a segment with endpoints $A(3, -2)$ and $B(8, 1)$.

- A $(\frac{5}{2}, -\frac{3}{2})$
- B $(\frac{11}{2}, \frac{1}{2})$
- C $(\frac{11}{2}, -\frac{1}{2})$
- D $(\frac{5}{2}, -\frac{1}{2})$
- E $(\frac{11}{2}, -\frac{3}{2})$

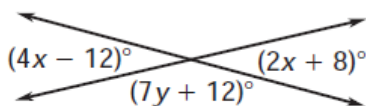
28.

Multiple Choice \overrightarrow{BD} bisects $\angle ABC$. If the $m\angle DBC = 28^\circ$, what is the $m\angle ABD$?

- A 14°
- B 28°
- C 56°
- D 62°
- E 152°

29.

Multiple Choice Find the value of x .



- A 10
- B 28
- C 20
- D 152
- E 128

30.

Multiple Choice \overrightarrow{AB} bisects $\angle CAD$. Find the value of x .

- A 2
- B 4
- C 6
- D 8
- E 10

