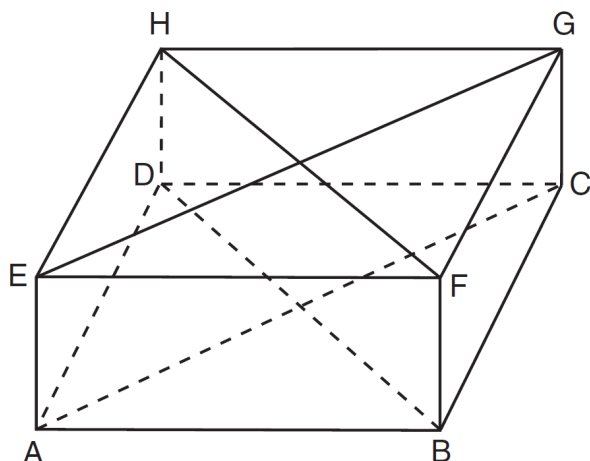


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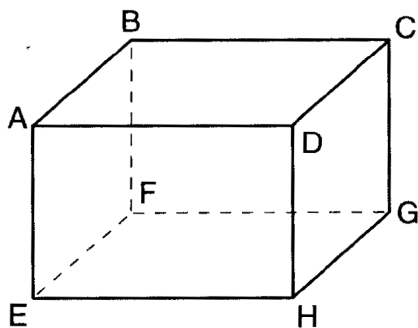
1. A rectangular prism is shown in the diagram below.



Which pair of line segments would always be both congruent and parallel?

- A) \overline{AC} and \overline{FB} B) \overline{FB} and \overline{DB}
 C) \overline{HF} and \overline{AC} D) \overline{DB} and \overline{HF}

2. A right rectangular prism is shown in the diagram below.



Which pair of edges are *not* coplanar?

- A) \overline{BF} and \overline{CG} B) \overline{BF} and \overline{DH}
 C) \overline{EF} and \overline{CD} D) \overline{EF} and \overline{BC}

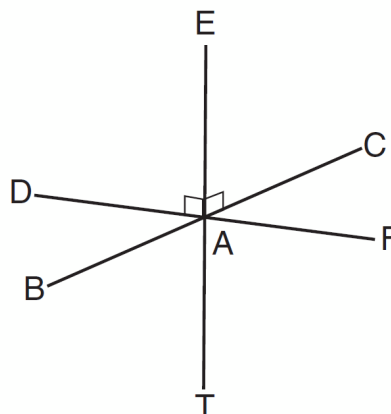
3. Point A is on line m . How many distinct planes will be perpendicular to line m and pass through point A ?

- A) one B) two
 C) zero D) infinite

4. A line segment has endpoints $(4,7)$ and $(1,11)$. What is the length of the segment?

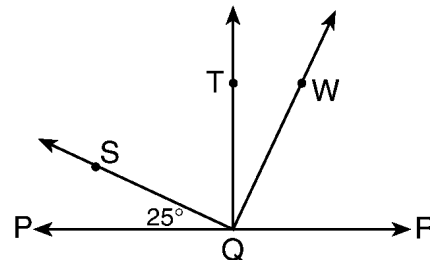
- A) 5 B) 7 C) 16 D) 25

5. As shown in the diagram below, \overline{FD} and \overline{CB} intersect at point A and \overline{ET} is perpendicular to both \overline{FD} and \overline{CB} at A .

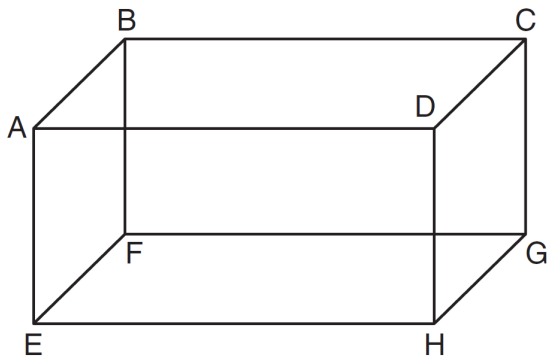


Which statement is *not* true?

- A) \overline{ET} is perpendicular to plane BAD .
 B) \overline{ET} is perpendicular to plane FAB .
 C) \overline{ET} is perpendicular to plane CAD .
 D) \overline{ET} is perpendicular to plane BAT .
6. What is the length of the line segment whose endpoints are $(1,-4)$ and $(9,2)$?
- A) 5 B) $2\sqrt{17}$ C) 10 D) $2\sqrt{26}$
7. If the measure of an angle is represented by $2x$, which expression represents the measure of its complement?
- A) $180 - 2x$ B) $90 - 2x$
 C) $90 + 2x$ D) $88x$
8. Base your answer to the following question on In the accompanying diagram, $\overline{QT} \perp \overline{PQR}$ at Q , $\overline{QW} \perp \overline{QS}$ at Q , and $m\angle SQP = 25$. Find $m\angle TQW$.



9. The diagram below shows a rectangular prism.

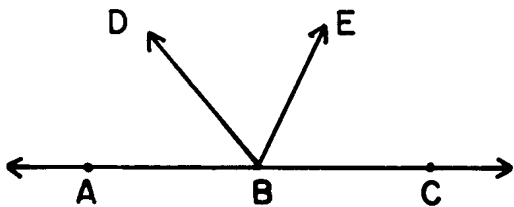


Which pair of edges are segments of lines that are coplanar ?

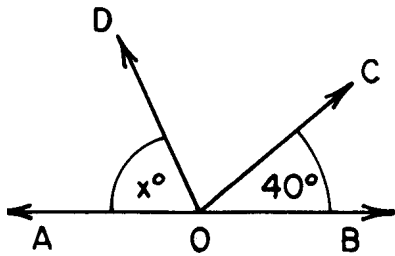
- A) \overline{AB} and \overline{DH} B) \overline{AE} and \overline{DC} C) \overline{BC} and \overline{EH} D) \overline{CG} and \overline{EF}

10. The measure of the supplement of $\angle R$ is 60° more than twice the measure of $\angle R$. Find $m\angle R$.

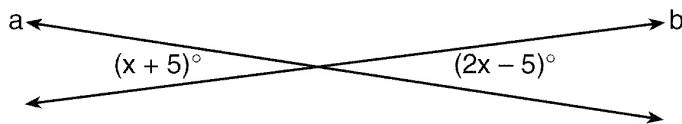
11. In the accompanying diagram, \overleftrightarrow{ABC} is a straight line and \overline{BE} bisects $\angle DBC$. If $m\angle ABD = 2x$ and $m\angle DBE = 2x + 15$, find x .



12. Base your answer to the following question on In the accompanying diagram, \overleftrightarrow{AOB} is a straight line, $m\angle BOC = 40^\circ$, and $m\angle DOA = x$. If $m\angle DOC$ is 8 more than x , find x .

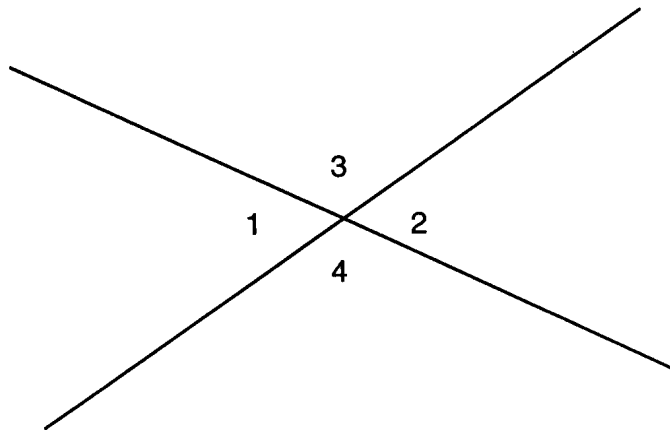


13. In the accompanying diagram, line a intersects line b .



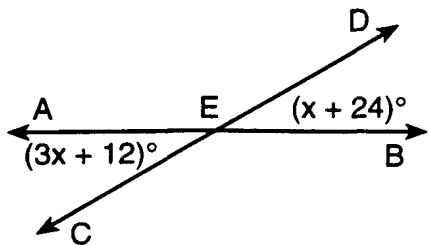
What is the value of x ?

- A) -10 B) 5 C) 10 D) 90
14. Base your answer to the following question on In the accompanying figure, two lines intersect, $m\angle 3 = 6t + 30$, and $m\angle 2 = 8t - 60$. Find the number of degrees in $m\angle 4$.



Review #1

15. In the accompanying diagram, \overleftrightarrow{AB} and \overleftrightarrow{CD} intersect at point E . If $m\angle AEC = 3x + 12$ and $m\angle DEB = x + 24$, find the value of x .



16. Base your answer to the following question on In the accompanying diagram, $m\angle ECB = 6x$, $m\angle ECD = 3x - 11$, and $m\angle DCB = 74$. What is the value of x ?

