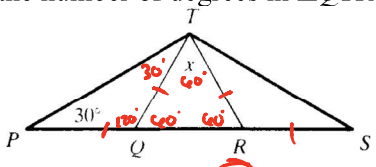
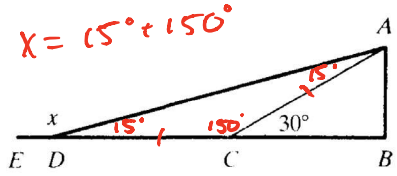
Orientation Exercises 12

1. In the figure, $\angle P$ measures 30°. $\overline{PS}$ is a line segment and $PQ = QT = TR = RS$. Find the number of degrees in $\angle QTR$.



A. 10°
B. 20°
C. 40°
D. 60°
E. 80°

2. In the figure, $AC = CD$. Find the number of degrees in $\angle ADE$.



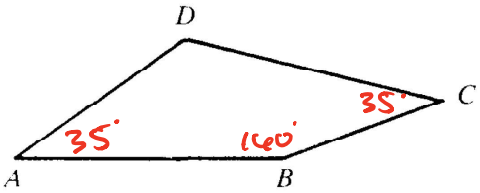
A. 105°
B. 120°
C. 135°
D. 150°
E. 165°

3. Which of these side lengths do not form a triangle?

The two smallest must sum to be larger than 3rd side.

A. 1-1-1
B. 7-24-25
C. 30-60-90
D. 3-4-5
E. $\sqrt{2}$ - $\sqrt{3}$ - $\sqrt{5}$

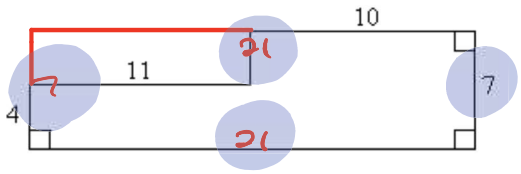
4. In quadrilateral $ABCD$, the measures of $\angle A$, $\angle B$, and $\angle C$ are 35°, 160°, and 35°, respectively. What is the measure of $\angle D$?



A. 120°
B. 130°
C. 160°
D. 170°
E. 230°

360 − 35 − 160 − 35

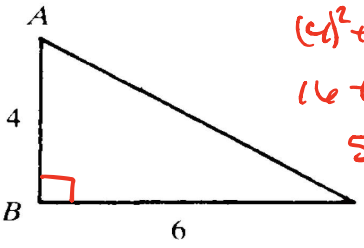
5. The perimeter of the figure below is:



A. 35
B. 53
C. 56
D. 48
E. 36

6. A polygon is not a triangle if it has exactly:
A. three sides
B. three angles
C. one of its angles measuring 135°
D. two perpendicular sides
E. two parallel sides

7. In the figure, ABC is a right angle, $\overline{AB}$ is 4 units long, and $\overline{BC}$ is 6 units long. How many units long is $\overline{AC}$?



$(4)^2 + (6)^2 = (AC)^2$
$16 + 36 = (AC)^2$
$52 = (AC)^2$
$\sqrt{52} = AC$
$2\sqrt{13} = AC$

A. 2
B. $\sqrt{10}$
C. $2\sqrt{5}$
D. $2\sqrt{13}$
E. 10

8. A right triangle with legs of length 7 inches and 24 inches has a perimeter, in inches, of:

7-24-25 Pythag Triple

A. 31
B. 56
C. 84
D. 168
E. None of the above

9. The length of a side of a square is $4\sqrt{2}$. What would be the length of the square's diagonal?

A. 4
B. $4\sqrt{2}$
C. 8
D. $8\sqrt{2}$
E. 16