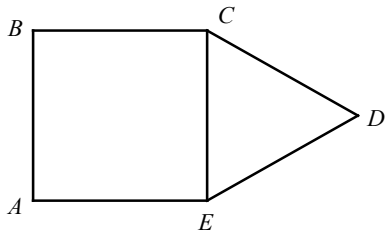
Chapter 17 Practice Test

1



In the figure above, CDE is an equilateral triangle and $ABCD$ is a square with an area of $4x^2$. What is the area of triangle CDE in terms of x?

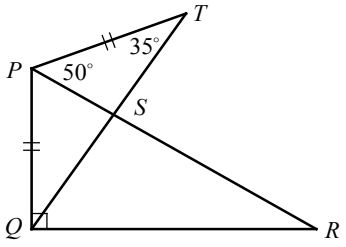
A) $\frac{\sqrt{3}}{2}x^2$

B) $\sqrt{3}x^2$

C) $\frac{3\sqrt{3}}{2}x^2$

D) $2\sqrt{3}x^2$

2



In the figure above, $\overline{PQ} \perp \overline{QR}$ and $\overline{PQ} \cong \overline{PT}$. What is the measure of $\angle R$?

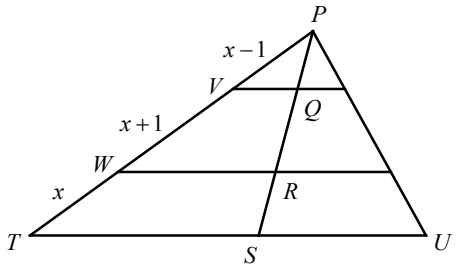
A) 30

B) 35

C) 40

D) 45

3



Note: Figure not drawn to scale.

In the figure above, $\overline{VQ} \parallel \overline{WR} \parallel \overline{TS}$.

If $PS = 15$, what is the length of $\overline{RS}$?

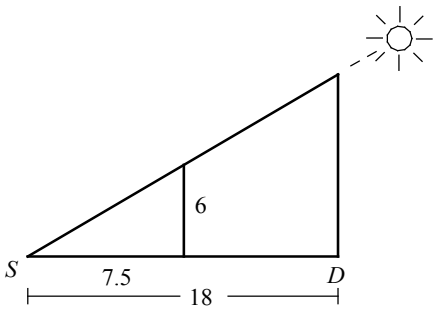
A) 4.5

B) 5

C) 6

D) 6.5

4



Note: Figure not drawn to scale.

A person 6 feet tall stands so that the ends of his shadow and the shadow of the pole coincide. The length of the person's shadow was measured 7.5 feet and the length of the pole's shadow, *SD*, was measured 18 feet. How tall is the pole?

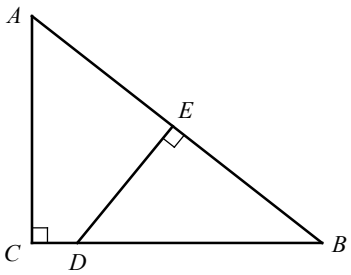
A) 12.8

B) 13.6

C) 14.4

D) 15.2

5



In the figure above, ΔABC and ΔDBE are right triangles. If $AC = 12$, $BC = 15$, and $DE = 8$, what is the length of BE?

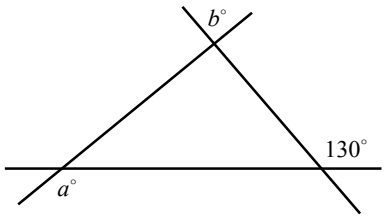
A) 8.5

B) 9

C) 9.5

D) 10

6



In the figure above, what is the value of $a - b$?

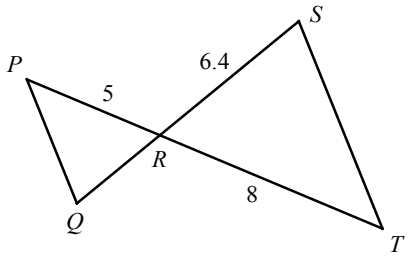
A) 50

B) 55

C) 60

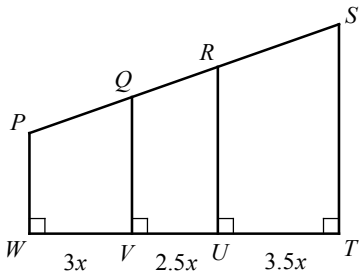
D) 65

7



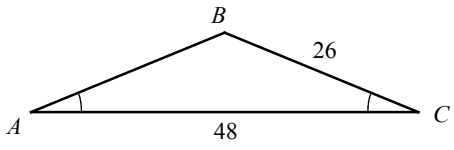
In the figure above, $\overline{PQ} \parallel \overline{ST}$ and segment PT intersects segment QS at R. What is the length of segment QS?

8



In the figure above, if $PS = 162$, what is the length of segment QR?

9



In the figure above, what is the area of the isosceles triangle ABC?