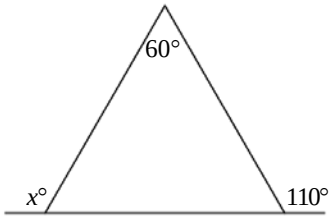
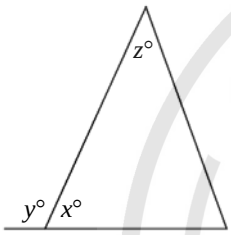
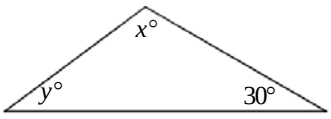
SATPREP
Assignment - Triangles



1. In the figure above, $x =$

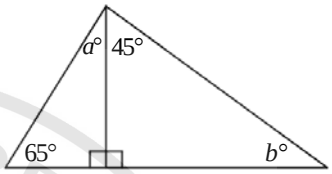


2. In the figure above, $x = 2z$ and $y = 3z$. What is the value of z?
   (A) 24
   (B) 30
   (C) 36
   (D) 54
   (E) 60



3. In the figure above, what is x in terms of y?
   (A) $150 - y$
   (B) $150 + y$
   (C) $80 + y$
   (D) $30 + y$
   (E) $30 - y$

4. The angles of a triangle are in the ratio of 2:3:4. What is the degree measure of the largest angle?



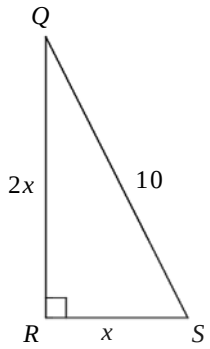
Note: Figure not drawn to scale.

5. In the figure above, what is the value of $a + b$?
   (A) 45
   (B) 70
   (C) 90
   (D) 145
   (E) 170

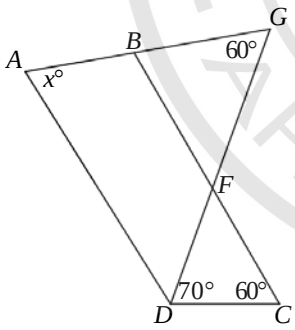
6. If two sides of a triangle are 8 and 5, each of the following could be the measure of the third side EXCEPT
   (A) 4
   (B) 5
   (C) 8
   (D) 12
   (E) 13

7. If the area of a right triangle is 15, what is its perimeter?
   (A) 11
   (B) 15
   (C) 16
   (D) 17
   (E) The answer cannot be determined from the information provided.

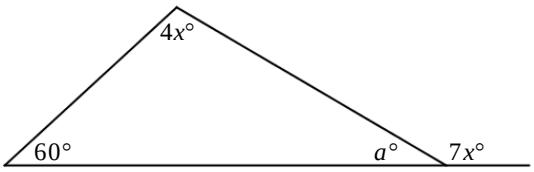
8. If the perimeter of isosceles triangle ABC is 20 and the length of side AC is 8, what is one possible value for the length of side BC?



9. In the figure above, what is the area of right ΔQRS?
   (A) $4\sqrt{5}$
   (B) 10
   (C) $8\sqrt{5}$
   (D) 20
   (E) 40



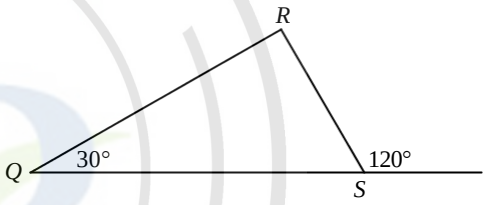
10. In the figure above, if $AD \parallel BC$, then $x =$
    (A) 20
    (B) 30
    (C) 50
    (D) 60
    (E) 70



Note: Figure not drawn to scale.

11. What is the value of a in the figure above?

12. What is the length of the hypotenuse of an isosceles right triangle with an area of 32?
    (A) 4
    (B) $4\sqrt{2}$
    (C) 8
    (D) $8\sqrt{2}$
    (E) $\sqrt{3}$



13. In ΔQRS shown above, if $QS = 6$, $RS =$
    (A) 12
    (B) $6\sqrt{3}$
    (C) 6
    (D) $3\sqrt{3}$
    (E) 3

14. The length of each side of a certain triangle is an even number. If no two of the sides have the same length, what is the smallest perimeter the triangle could have?
    (A) 6
    (B) 10
    (C) 12
    (D) 18
    (E) 24

1. 130
2. 36
3. A
4. 80
5. B
6. E
7. E
8. 8
9. D
10. E
11. 20
12. D
13. E
14. D