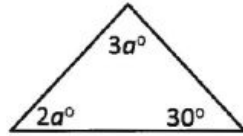


SATPREP

Assignment : *Interior and Exterior Angles*

Easy



Note: Figure not drawn to scale.

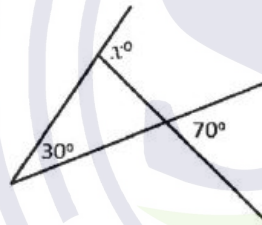
1. Based on the figure above, what is the value of a ?

- a) 25
- b) 30
- c) 35
- d) 40

2. In a triangle, one angle is double the size of another angle. If the measure of the third angle is 30 degrees, what is the measure of the largest angle in degrees?

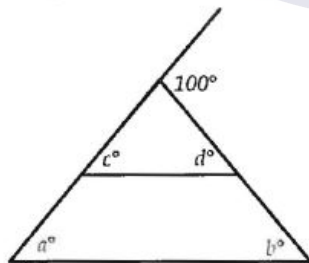
- a) 70°
- b) 80°
- c) 90°
- d) 100°

3. In the figure below, what is the value of x ?

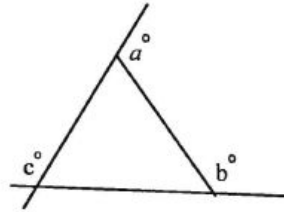


- a) 80
- b) 100
- c) 120
- d) 130

4. In the figure below, what is the value of $a + b + c + d$?

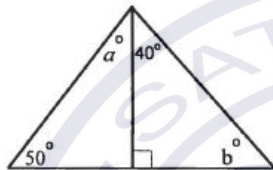


5. In the figure below, $c = 150$. What is the value of $a + b$?



- a) 140
- b) 180
- c) 210
- d) 240

6. In the figure below, what is the value of $2a - b$?



- a) 10
- b) 15
- c) 20
- d) 30

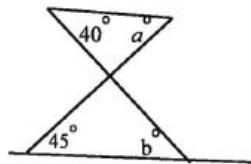
7. In the figure below, if $a = 3c$, and $b = 2a$, what is the value of c ?



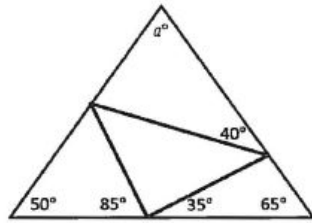
Note: Figure not drawn to scale.

- a) 18
- b) 20
- c) 28
- d) 34

8. In the figure below, what is the value of $a - b$?

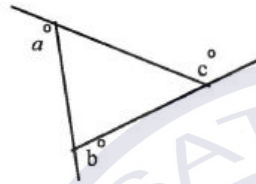


9. In the figure below, what is the value of a ?

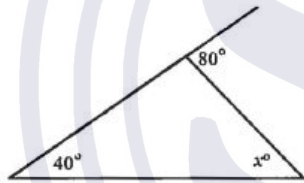


Note: Figure not drawn to scale.

10. In the figure below, what is the sum of a , b and c ?



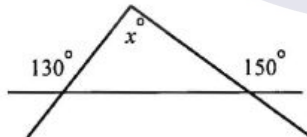
- a) 90
- b) 180
- c) 270
- d) 360



11. In the triangle above, what is the value of x ?

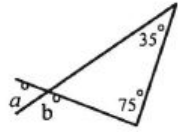
- a) 30
- b) 40
- c) 50
- d) 60

12. In the figure below, what is the value of x ?



- a) 50
- b) 70
- c) 90
- d) 100

13. In the figure below, what is the value of $a + 2b$?

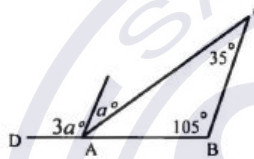


Note: Figure not drawn to scale.

- a) 250
- b) 260
- c) 290
- d) 300

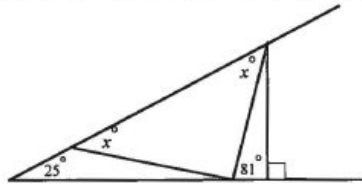
Medium

14. In the figure below shows $\triangle ABC$ and its exterior angle $\angle DAC$. What is the value of a ?



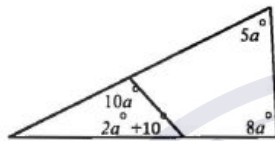
15. The three interior angle measures of a triangle have the ratio $3 : 4 : 5$. What is the sum of the measures, in degrees, of the smallest and largest angles?
- a) 100°
 - b) 110°
 - c) 120°
 - d) 140°
16. The three angles of a triangle have measures x° , $2x^\circ$, and $4y^\circ$, where $x > 56$. If x and y are integers, what is one possible value of y ?

17. In the figure below, what is the value of x ?



Note: Figure not drawn to scale.

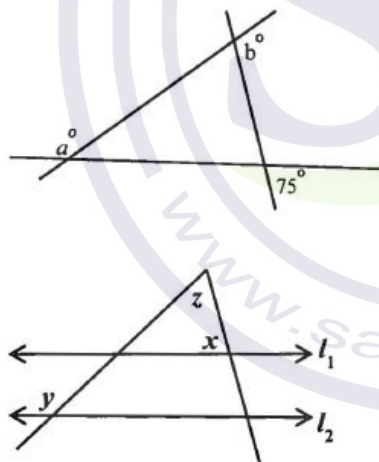
18. In the figure below, what is the value of a ?



Note: Figure not drawn to scale.

- a) 25
- b) 20
- c) 15
- d) 10

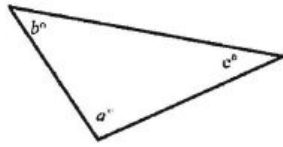
19. In the figure below, what is the value of $a + b$?



20. In the figure above, if $l_1 \parallel l_2$, what does z equal in terms of x and y ?

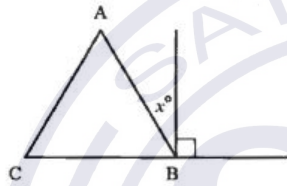
- a) $180^\circ - x - y$
- b) $180^\circ - y + x$
- c) $y - x$
- d) $x - y$

Hard

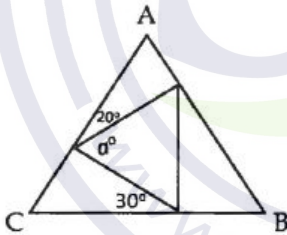


Note: Figure not drawn to scale.

21. In the triangle above, $a + b = 100$, and $b + c = 150$. What is the value of b ?
- a) 40
 - b) 50
 - c) 70
 - d) 80



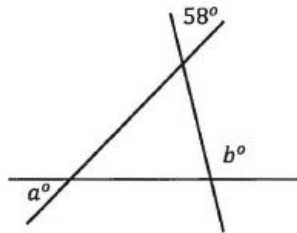
22. In the figure above, $\triangle ABC$ is an isosceles triangle and $m\angle A = 60^\circ$. What is the value of x ?



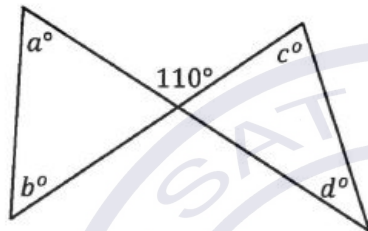
Note: Figure not drawn to scale.

23. In the figure above, $\triangle ABC$ is an equilateral triangle. What is the value of a ?
- a) 70°
 - b) 60°
 - c) 50°
 - d) 40°

24. In the figure below, what is $b - a$?

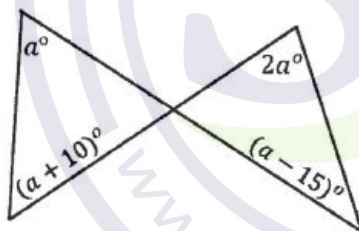


25. In the figure below, what is $a + b - c - d$?



Note: Figure not drawn to scale.

26. In the figure below, what is the value of a ?



Note: Figure not drawn to scale.