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Class: 7
Subject: Mathematics
Topic: Lines and Angles
No. of Questions: 20
Duration: 60 Min
Maximum Marks: 60

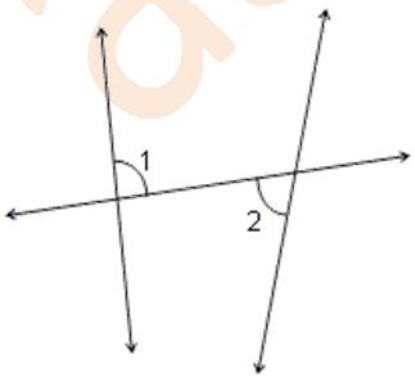
1. If two lines intersect at a point, then the vertically opposite angles are always _____
   A. supplementary
   B. unequal
   C. equal
   D. None of these

   C (Fact)

2. Two angles forming a linear pair are _____.
   A. equal
   B. complimentary
   C. supplementary
   D. None of these

   C (Fact)

3. What is the name given to the pair of angles ($\angle 1$, $\angle 2$) in the given figure?



A. Corresponding angles

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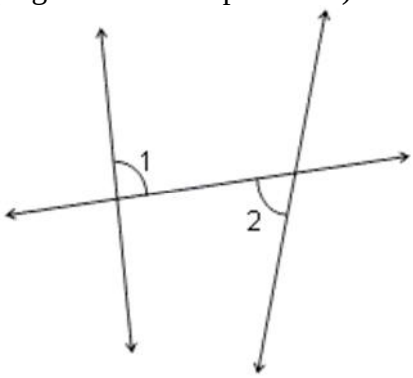
B. Alternate interior angles
C. Alternate exterior angles
D. Linear angles

B (Right Answer Explanation)



$\angle 1$, $\angle 2$ represent alternate interior angles.
Hence, (2) is the correct option.

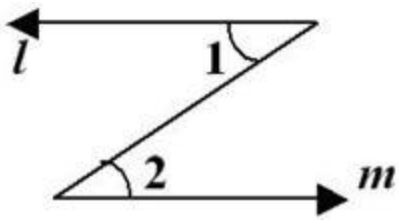
4. If two angles are supplementary then the sum of their measures is _____ .

A. 180∘
B. 90∘
C. 45∘
D. 360∘

A (Fact)

5. If l||m, then $\angle 1 = \angle 2$ because they are _____.

A. corresponding angles
B. supplementary angles
C. vertically opposite angles
D. alternate interior angles



D (Fact)

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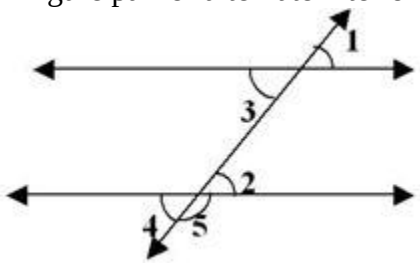
6. In figure pair of alternate interior angles are:



A. None of these

B. ∠2, ∠3

C. ∠1, ∠2

D. ∠2, ∠5

B(Fact)

7. If two parallel lines are cut by a transversal, each pair of the corresponding angles are _____ in measure.

A. equal

B. supplementary

C. complimentary

D. unequal

A(Fact)

8. Line a‖b, c is a transversal then ∠ y =?

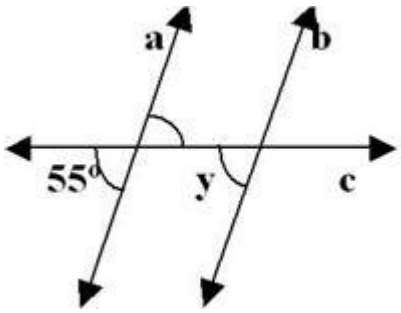
A. 90◦

B. 180◦

C. 125◦

D. 55◦

D (Corresponding Angles)



9. The difference in the measures of two complementary angles is 12◦. Find the measures of the angles.

A. 50◦ and 40◦

B. 51◦ and 49◦

C. 51◦ and 39◦

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D. None of these

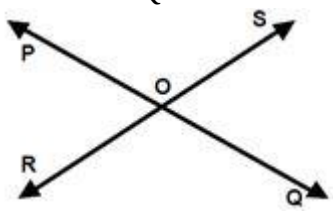
C (Sum of angles must be 90 and they differ by 12)

10. Which pair of following angles are complementary?

A. 70◦, 20◦
B. 45◦, 55◦
C. 48◦, 52◦
D. 75◦, 25◦

A (Sum has to be 90)

11. Two lines PQ and RS intersect at O. If ∠POR = 50◦, then value of ∠ROQ is



A. 90◦
B. 60◦
C. 130◦
D. 50◦

C (Both the angles form linear pair)

12. How many end points does a line segment have?

A. 3
B. 0
C. 2
D. 1

C (Fact)

13. If a line is a transversal to three lines, how many points of intersections are there?

A. 3
B. 2
C. 1
D. 4

A (A line intersecting 3 lines will produce 3 intersection points)

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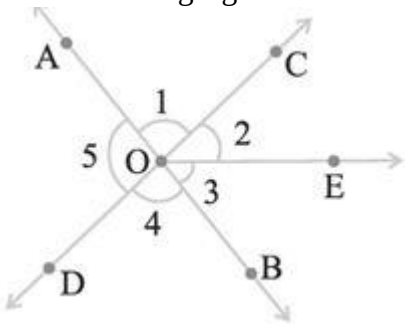
14. In the following figure: What is the vertically opposite angle of ∠5?



A. ∠2 + ∠3

B. ∠2

C. ∠4

D. ∠3

A (Fact)

15. An _____ is formed when lines or line segments meet.

A. line
B. ray
C. angle
D. line segment

C (Draw the figure)

16. If two _____ are cut by a transversal, each pair of corresponding angles are equal in measure.

A. intersecting lines
B. perpendicular lines
C. parallel lines
D. None of these

C (Fact)

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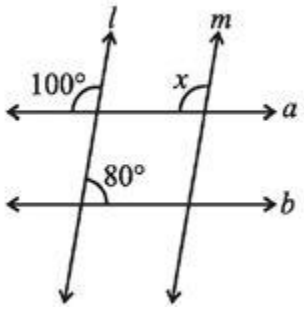
17. Two supplementary angles are in the ratio 3: 2. Find the angles.

A. 100 ∘, 80 ∘
B. 108 ∘, 72 ∘
C. 108 ∘, 36 ∘
D. 36 ∘, 72 ∘

B (3X + 2X = 180, X=36 So 2x = 72 and 3x = 108)

18. Find the value of x in adjoining figure if l‖m.

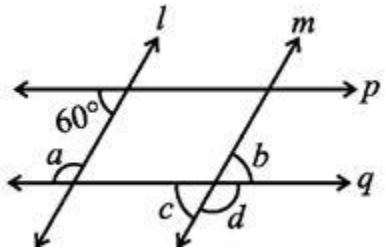


A. 90∘
B. 80∘
C. 100∘
D. 70∘

C (100 and x are corresponding angles);

19. Lines l ‖ m, p‖q; Find a.

A. 120∘
B. 80∘
C. 70∘
D. 90∘



A (Interior Angles on the same side of transversal are supplementary)

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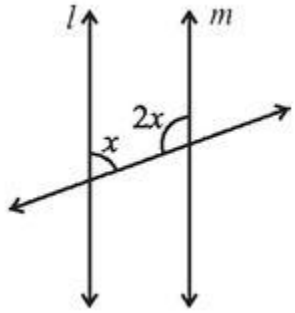
20. Find the value of x in below figure if l ‖ m.



A. 90∘
B. 80∘
C. 70∘
D. 60∘

D (x + 2x = 180, x = 60)

Angles on the same side of transversal are supplementary