Parallel Lines Cut By a Transversal Worksheet

Name: _____ Date: _____

A. IDENTIFY THE ANGLES

When two parallel lines are cut by a transversal, identify the relationship between the angles.

1. Corresponding angles: _____
2. Alternate interior angles: _____
3. Alternate exterior angles: _____
4. Co-interior angles: _____

B. FIND THE MISSING ANGLE

Use the properties of parallel lines to find x.

5. If one angle is 65°, its corresponding angle is: x = _____°
6. If one angle is 115°, its alternate interior angle is: x = _____°
7. If one angle is 72°, its co-interior angle is: x = _____°
8. If one angle is 128°, its vertically opposite angle is: x = _____°

prutorial.in

C. SOLVE FOR x

9. Corresponding angles are equal. (3x + 10)° = (5x - 30)° x = _____
10. Alternate interior angles are equal. (4x + 8)° = (6x - 22)° x = _____
11. Co-interior angles add up to 180°. (3x + 15)° + (2x + 25)° = 180° x = _____
12. Corresponding angles are equal. (7x - 5)° = (4x + 40)° x = _____

D. FIND THE ANGLE

13. One angle is 55°.

    Corresponding angle = _____°

    Alternate interior angle = _____°

    Co-interior angle = _____°

14. One angle is 120°.

    Corresponding angle = _____°

Alternate interior angle = _____°

Co-interior angle = _____°

15. One angle is 83°.

    Corresponding angle = _____°

    Alternate interior angle = _____°

    Co-interior angle = _____°

E. TRUE OR FALSE

Write True or False.

16. Corresponding angles are equal when two parallel lines are cut by a transversal.

17. Co-interior angles add up to 180°.

18. Alternate interior angles are always supplementary.

19. Vertically opposite angles are equal.

20. A transversal intersects two or more lines.

prtutorial.in

F.

21. Two parallel lines are cut by a transversal. One angle measures 68°.

    How many of the eight angles measure 68°?

    Answer: _____

22. The angle marked (5x + 10)° is corresponding to an angle of 85°.

    Find x. x = _____

23. Two co-interior angles are (4x + 20)° and (2x + 40)°.

    Find x and both angles.

    x = _____ Angles = _____° and _____°