

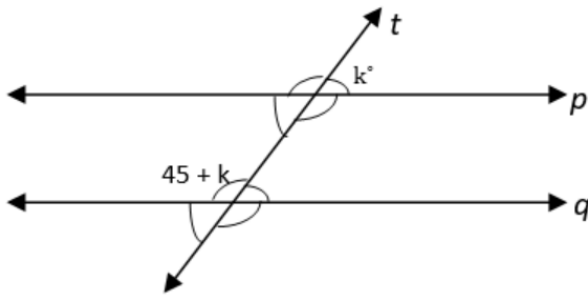


STANDARD 8TH: CHAPTER 2

Parallel lines & transversal

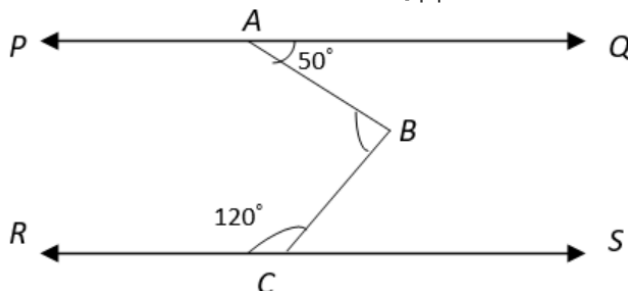
Q.1) Select the correct alternatives.

1. Find the value of k if $p \parallel q$.



- a) 10°
- b) 67.5°
- c) 60°
- d) 80°

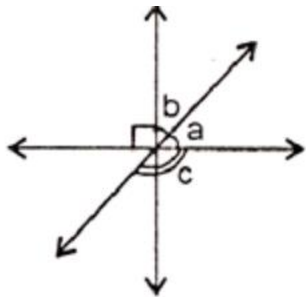
2. Find the value of $\angle ABC$ if $PQ \parallel RS$.



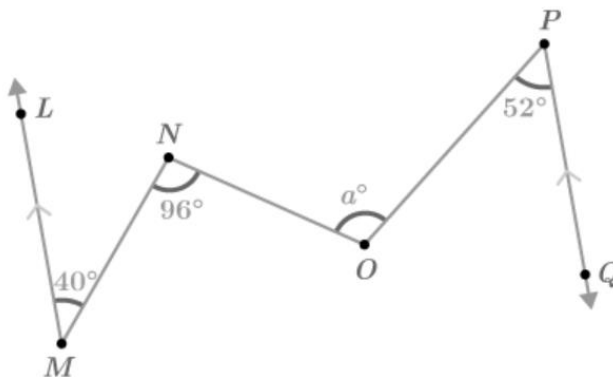
- a) 70°
- b) 140°
- c) 110°
- d) 90°

3. Two angles whose sum is equal to 180° are called:
- a) Vertically opposite angles
 - b) Complementary angles
 - c) Adjacent angles
 - d) Supplementary angle

4. In the given figure, if the angles a and b are in the ratio $2 : 3$, then angle c is:



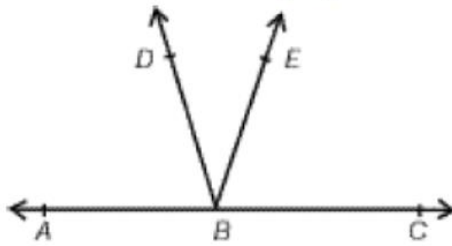
- a) 90°
 b) 126°
 c) 144°
 d) 100°
5. When the transversal intersects two parallel lines pair of _____ angles is equal
- a) Linear pair angles
 b) Corresponding angles
 c) Adjacent angles
 d) Interior Angles
6. In the following figure $LM \parallel PQ$. Find the value of a .



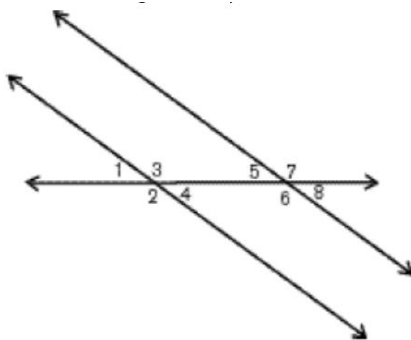
- a) 95.5°
 b) 116°
 c) 145°
 d) 108°

7. Which of the following statements is ALWAYS TRUE when parallel lines are cut by a transversal?
- The sum of the degree measure of corresponding angles is 180° .
 - The sum of the degree measure of complementary angles is 180° .
 - The angles in a vertical pair are acute.
 - Pair of alternate angles are congruent.

8. Use the following figure to determine which statements are true.



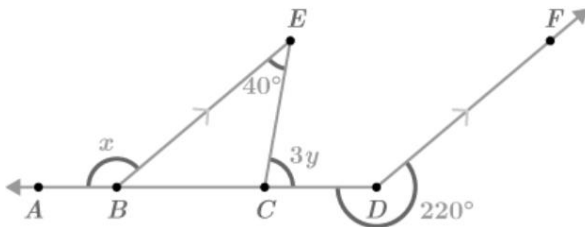
- $\angle ABD$ and $\angle DBC$ are a linear pair.
 - $\angle ABE$ and $\angle EBC$ are adjacent.
 - $\angle DBE$ and $\angle EBC$ are adjacent.
 - $\angle EBC$ and $\angle EBA$ are a linear pair.
 - All of the above are true.
9. Two angles are a linear pair. Their measures are represented by $x+10$, and $3x+10$. What are the measures of the angles?
- 40° and 40°
 - 40° and 40°
 - 50° and 130°
 - 120° and 60°
10. In the diagram of parallel lines cut by a transversal, shown below, which of the following statements is false?



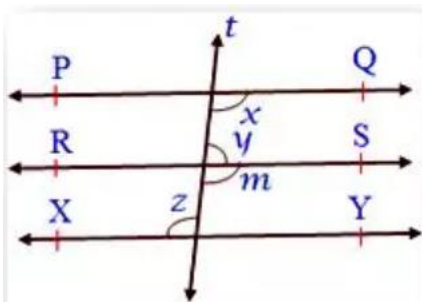
- $\angle 3$ and $\angle 4$ are vertical angles.
- $\angle 5$ and $\angle 8$ are corresponding angles.
- $\angle 3$ and $\angle 5$ are alternate interior angles.
- $\angle 2$ and $\angle 8$ are alternate exterior angles.
- All are false

Q2. Solve:

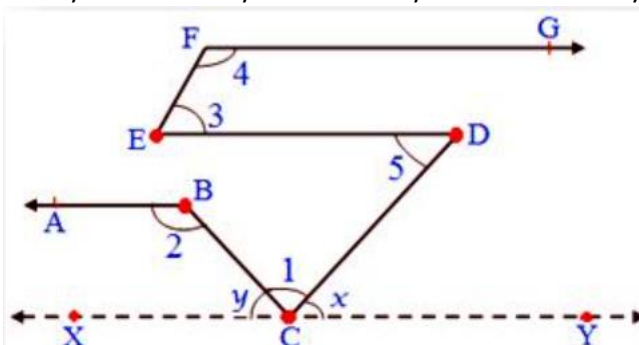
- Prove that when two parallel lines are intersected by a transversal, then the bisectors of any two corresponding angles are parallel.
- In the figure, $ABCD$ is a straight line and $BE \parallel DF$. Calculate the value of x and y .



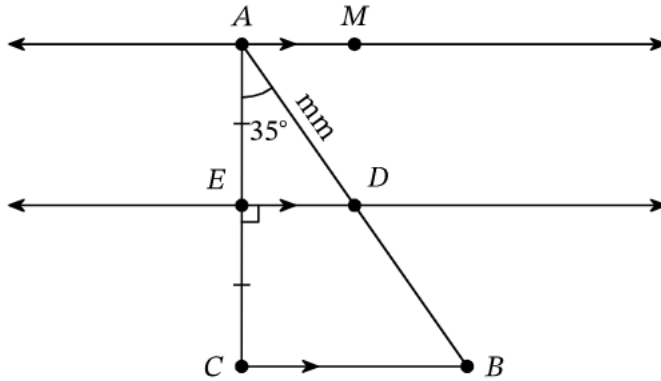
- In the given figure $PQ \parallel XY$. Also, $y:z = 4:5$ find x, y, z .



- In the given figure, $AB \parallel ED$, $ED \parallel FG$, $EF \parallel CD$. Also, $\angle 1 = 60^\circ$, $\angle 3 = 55^\circ$, then find $\angle 2$, $\angle 4$, $\angle 5$.

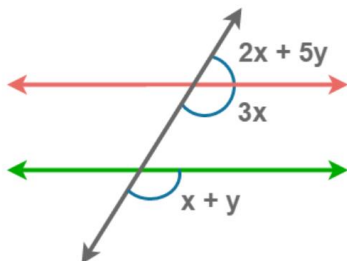


5. Consider triangle ABC and lines $AM \leftrightarrow$ and $CD \leftrightarrow$, which are parallel to $CB \leftrightarrow$,
 $l(AD) = 5mm$

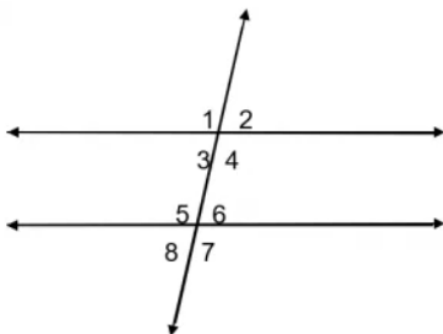


- a) Find the length of AB .
 b) Find the measure of $\angle ABC$.

6. Find the value of x and y in the given figure where AB is parallel to CD .

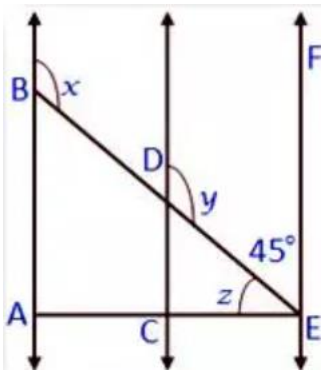


7. In the Following Figure, Find all Other Angles if $\angle 6 = 70$ Degrees.

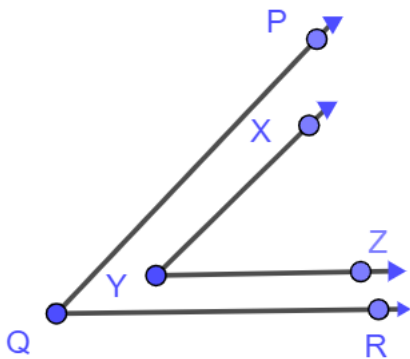


8. In the given figure $AB \parallel CD \parallel EF$ and $AE \perp AB$.

Also, $\angle BAE = 90^\circ$. Find the values of $\angle x$, $\angle y$ and $\angle z$.



9. In figure sides of $\angle PQR$ and $\angle XYZ$ are parallel to each other. Prove that $\angle PQR \cong \angle XYZ$



10. In the figure, $y = 108^\circ$ and $x = 71^\circ$ are lines m and n parallel?

