



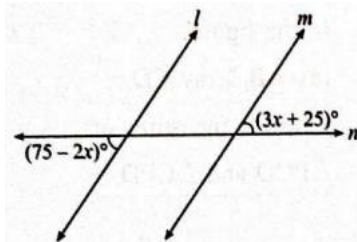
STANDARD 8TH: CHAPTER 2

Parallel lines & transversal

Q1. Choose the correct alternative.

1. In the figure, if *line l* \parallel *line m* and line *n* is the transversal then the value of *x* is

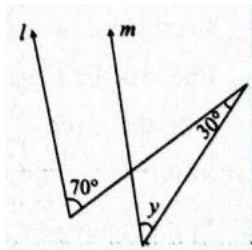
_____.



- a) 10
- b) 20
- c) 30
- d) 40

2. In the figure, if *line l* \parallel *line m* and with the given information the value of *y* is

_____.



- a) 10
- b) 20
- c) 30
- d) 40

3. When a transversal cuts two lines such that pairs of alternate interior angles are _____, then the lines will be parallel.

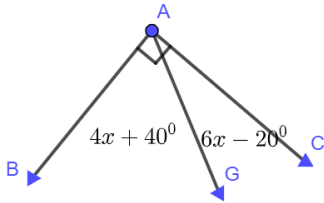
- a) Opposite
- b) Supplementary
- c) Adjacent
- d) Equal

4. If two parallel lines are intersected by a transversal, then the interior angles on the same side of the transversal are equal

State: True or False

- a) True
- b) False

5. What is the value of x ?

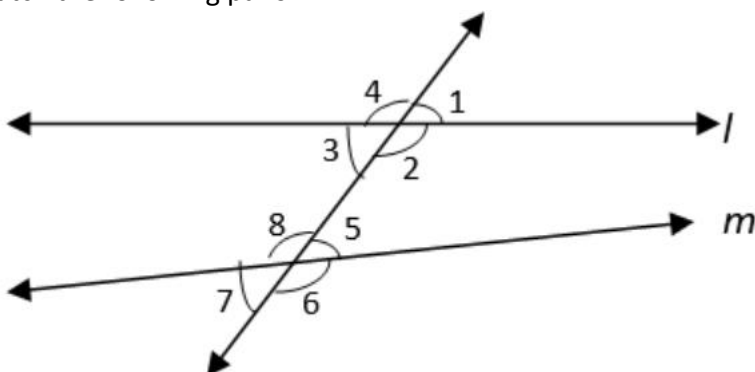


- a) 70°
- b) 30°
- c) 7°
- d) 10°

6. Number of angles formed by transversal and two parallel lines are _____.

- a) 2
- b) 4
- c) 6
- d) 8

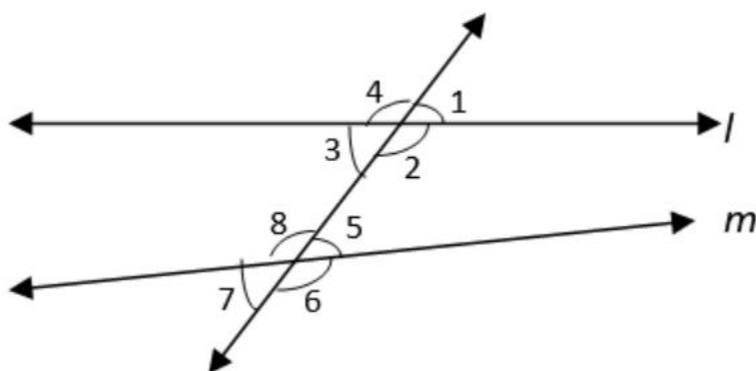
7. Match the following pairs.



A	B
i) $\angle 1$ and $\angle 5$	j) Interior Angles
ii) $\angle 4$ and $\angle 6$	ii) Exterior Angles
iii) $\angle 3$ and $\angle 8$	iii) Corresponding Angles

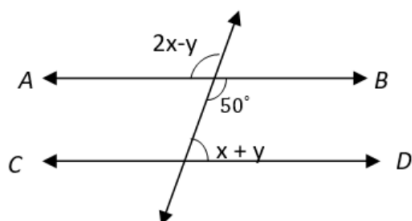
- a) (i) \rightarrow (ii), (ii) \rightarrow (iii), (iii) \rightarrow (i),
b) (i) \rightarrow (i), (ii) \rightarrow (ii), (iii) \rightarrow (iii),
c) (i) \rightarrow (iii), (ii) \rightarrow (ii), (iii) \rightarrow (i),
d) (i) \rightarrow (iii), (i) \rightarrow (i), (iii) \rightarrow (ii),

8. Which of the following is not correct if $l \parallel m$.



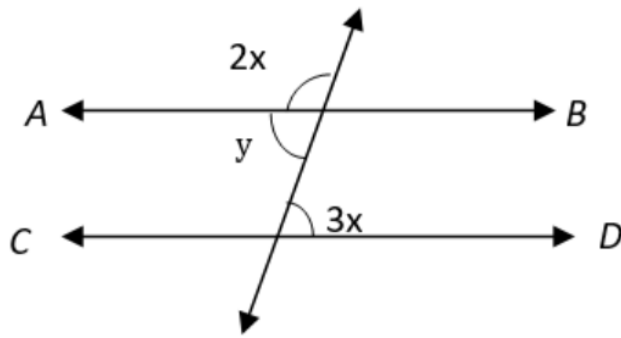
- a) $\angle 1 = \angle 7$
b) $\angle 2 = 180 - \angle 5$
c) $\angle 4 + \angle 7 = 180$
d) $\angle 3 = \angle 7$

9. What will be the values of x and y if line $AB \parallel CD$?



- a) $x = 70^\circ$ and $y = 60^\circ$
b) $x = 60^\circ$ and $y = 70^\circ$
c) $x = 60^\circ$ and $y = 60^\circ$
d) $x = 70^\circ$ and $y = 70^\circ$

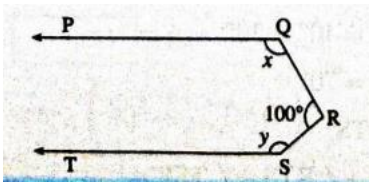
10. Find the value of x and y if line $AB \parallel CD$.



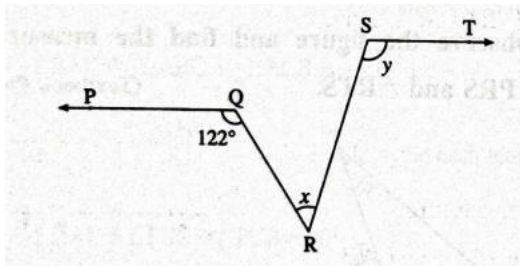
- a) $x = 36^\circ$ and $y = 108^\circ$
- b) $x = 72^\circ$ and $y = 36^\circ$
- c) $x = 108^\circ$ and $y = 72^\circ$
- d) $x = 36^\circ$ and $y = 72^\circ$

Q2. Solve

1. In the figure, if $\angle QRS = 100^\circ$ and ray $QP \parallel$ ray ST what are possible values of x and y provided x and y are obtuse angles.



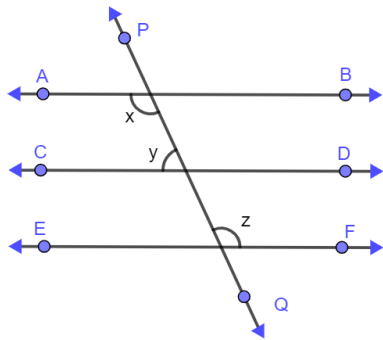
2. In the figure, $\angle PQR = 122^\circ$, $\angle QRS = x$ and $\angle RST = y^\circ$



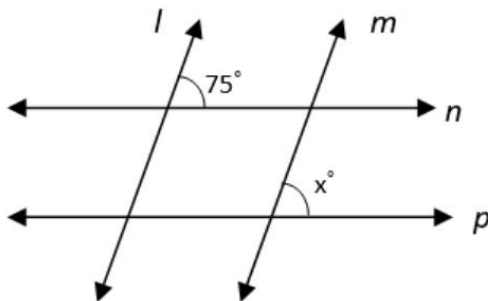
What can be possible values of x and y so that ray $QP \parallel$ ray ST ?

3. Ray PQ and Ray PR are perpendicular to each other. Points B and A are in the interior and exterior of $\angle QPR$ respectively. Ray PB and PR are perpendicular to each other. Draw the figure showing all these rays and write:
- a) A pair of complementary angles
 - b) A pair of adjacent angles
 - c) A pair of supplementary angles
 - d) A pair of congruent angles.

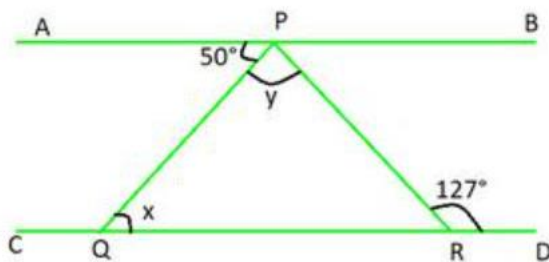
4. Line $AB \parallel$ Line $CD \parallel$ Line EF and line QP is their transversal. If $y : z = 3 : 7$. Then find the measure of angle x .



5. Find the value of $\angle x$ if line $l \parallel m$ and line $n \parallel p$.

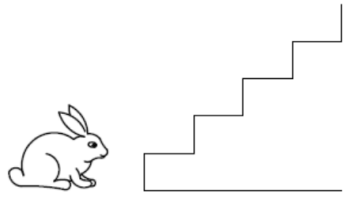


6. In Figure, if $AB \parallel CD$, $\angle APQ = 50^\circ$ and $\angle PRD = 127^\circ$, find x and y .



7. If an angle is 28° less than its complement, find its measure?
8. If $3^p + 3^4 = 90$, $2^r + 44 = 76$, and $5^3 + 6^s = 1421$, what is the product of p , r , and s ?
9. Buzz Bunny is hopping up and down a set of stairs, one step at a time. In how many ways can Buzz start on the ground, make a sequence of 6 hops, and end up

back on the ground? (For example, one sequence of hops is up-up-down-down-up-down.)



10. Transversal t cuts l and n ; $t \perp l$ and $l \parallel n$. Then prove that $t \perp n$.