



# ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION



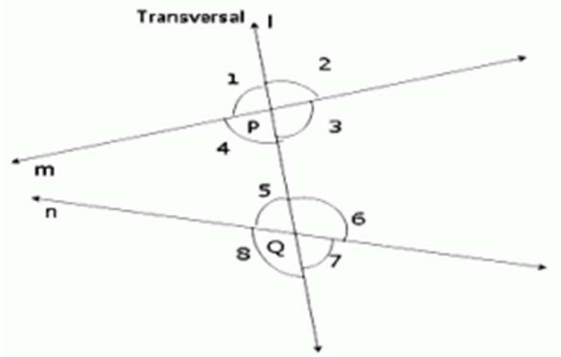
Sub: Algebra and Geometry  
Duration: 40 min

Class: 7  
Worksheet 3  
PARALLEL LINES

Date: 16.04.20  
Full Marks: 15

### Choose the Correct options:

1. In the given figure, line  $l$  is the transversal intersecting the two lines  $m$  and  $n$  at  $P$  and  $Q$ . Which of the following is the pair of alternate interior angles?

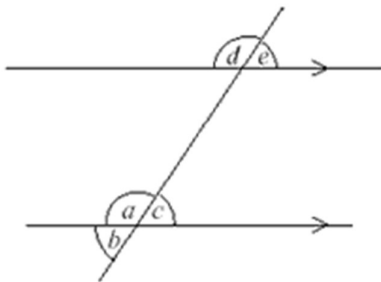


- a)  $\angle 3$  and  $\angle 5$
- b)  $\angle 3$  and  $\angle 7$
- c)  $\angle 1$  and  $\angle 7$
- d)  $\angle 1$  and  $\angle 5$

2. Line  $a$  makes an angle of 30 degrees with the line  $b$ , also line  $c$  makes an angle of 30 degrees with line  $b$ . Then, \_\_\_\_\_.

- a) line  $a \parallel$  line  $c$
- b) line  $a \perp$  line  $b$
- c) line  $a \parallel$  line  $b$
- d) line  $a \perp$  line  $c$

3. In the figure below, the angle  $a = 150^\circ$ . The other angle in the figure which is also  $150^\circ$  is:

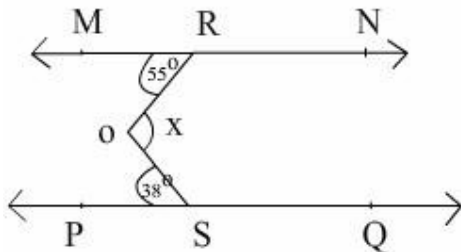


- a)  $e$
- b)  $b$
- c)  $d$
- d)  $c$

4. If a transversal intersects two parallel lines, then each pair of corresponding angles is .....

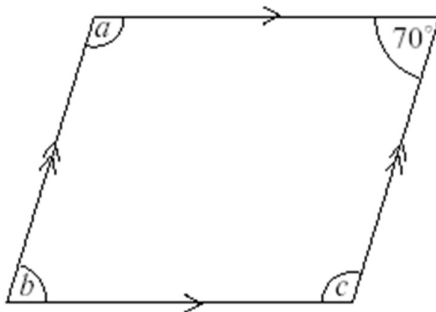
- a) Parallel
- b) Perpendicular
- c) Equal
- d) Different

5. In the figure,  $PQ \parallel MN$ , the value of  $x$  will be



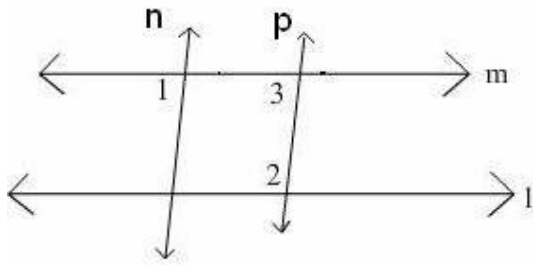
- a)  $85^\circ$
- b)  $93^\circ$
- c)  $90^\circ$
- d)  $100^\circ$

6. The figure below shows a parallelogram. What is the measure of  $\angle b$ ?



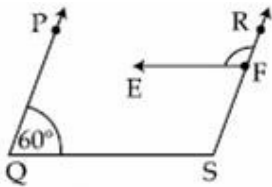
- a)  $90^\circ$
- b)  $70^\circ$
- c)  $110^\circ$
- d)  $100^\circ$

7. In the figure if  $l \parallel m$ ,  $n \parallel p$  and  $\angle 1 = 85^\circ$ , then  $\angle 2$  is equal to



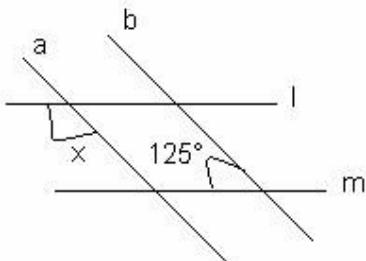
- a)  $66^\circ$
- b)  $45^\circ$
- c)  $40^\circ$
- d)  $95^\circ$

8. In the given figure,  $PQ \parallel RS$  and  $EF \parallel QS$ . If  $\angle PQS = 60^\circ$ , then the measure of  $\angle RFE$  is:

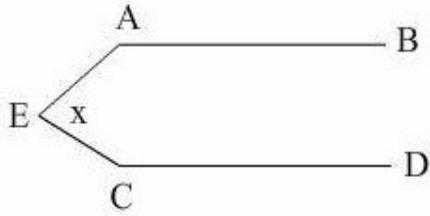


- a)  $60^\circ$
- b)  $120^\circ$
- c)  $180^\circ$
- d)  $115^\circ$

9. In the following figure, the value of  $x$  is



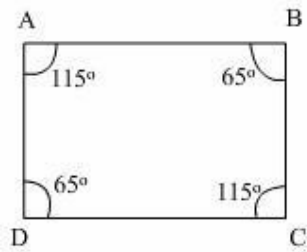
- a)  $125^\circ$
- b)  $55^\circ$
- c)  $60^\circ$
- d)  $45^\circ$



10. In the above figure  $AB \parallel CD$ . Also,  $\angle EAB = 84^\circ$  and  $\angle ECD = 126^\circ$ . Then, the value of "x" is

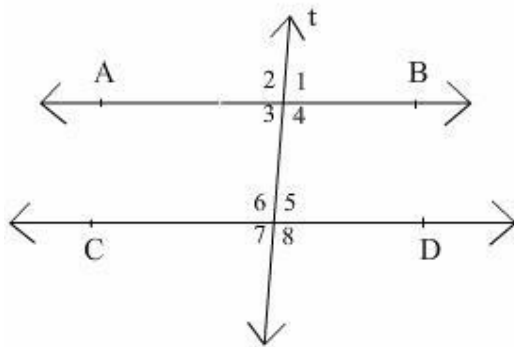
a)  $80^\circ$   
 b)  $150^\circ$   
 c)  $120^\circ$   
 d)  $160^\circ$

11. Observe the given figure and choose the correct statement



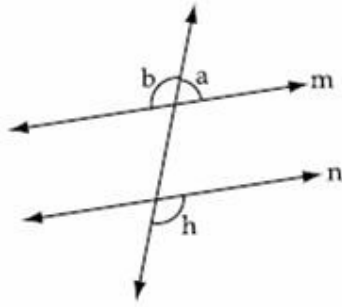
- a)  $AB \parallel AD$   
 b)  $BC \parallel DC$   
 c)  $AD \parallel CD$   
 d)  $AB \parallel CD$

12. In the figure,  $AB \parallel CD$ . If  $\angle 2 = (2x + 30)^\circ$ ,  $\angle 4 = (x + 2y)^\circ$  and  $\angle 6 = (3y + 10)^\circ$  the measure of  $\angle 5$  is



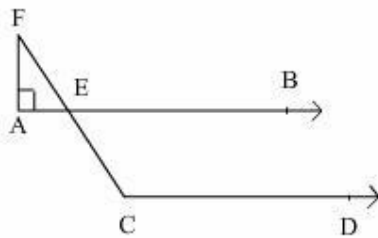
- a)  $90^\circ$   
 b)  $50^\circ$   
 c)  $60^\circ$   
 d)  $40^\circ$

13. In fig., if  $m \parallel n$  and  $\angle a : \angle b = 2 : 3$ , the measure of  $\angle h$  is



- a)  $72^\circ$
- b)  $120^\circ$
- c)  $108^\circ$
- d)  $150^\circ$

14. In the figure,  $AB \parallel CD$  and  $\angle F = 30^\circ$  the value of  $\angle ECD$  is



- a)  $110^\circ$
- b)  $109^\circ$
- c)  $120^\circ$
- d)  $105^\circ$

15. If two parallel lines are intersected by a transversal then, pair of alternate interior angles are:

- a) Equal
- b) Sum of the two angles is  $360^\circ$
- c) Complementary
- d) Supplementary