Q.1 Which of the following is not true for adjacent angles:

(a) they have a common arm  
(b) they have a common vertex  
(c) their sum is 180°  
(d) their other two arms lie on the opposite side of the common arm.

Q.2 Two adjacent angles whose sum is 180° are called:

(a) linear pair  
(b) vertically opposite  
(c) supplementary  
(d) complementary

Q.3 Two intersecting lines form........... pairs of vertical angles:

(a) one  
(b) two  
(c) three  
(d) four

Q.4 Supplement of an obtuse angle is an .................. .

Q.5 ............... angles have a common vertex, and a common arm but no common interior points.

Q.6 Complement of 81° is ............ .

Q.7 Supplement of 132° is ............ .

Q.8 An angle is \(\frac{4}{5}\) of its supplement. What is its magnitude?

Q.9 An angle is \(\frac{2}{3}\) of its complement. What is its magnitude?

Q.10 In the figure :

(i) Equal supplement angles are ............ and ............ .
(ii) Acute vertically opposite angles are .......... and .......... .

(iii) \( \angle AOE \) and .......... are complementary angles.

(iv) \( \angle AOB \) and .......... form a linear pair.

(v) Supplement of \( \angle AOE \) is .......... .

Q.11 Find the value of 'y' in each of the following figures:

SA1 (Q.12 to Q.19)

Q.12 When a transversal cuts two non-parallel lines, the only pair of angles which is equal is;

(a) alternate interior (b) alternate exterior
(c) corresponding (d) vertically opposite

Q.13 In the figure, if 'p' is the transversal to lines \( m \) and \( n \), then name:

(i) angle corresponding to \( \angle a \).
(ii) exterior alternate angle to \( \angle b \).
(iii) alternate interior angle to \( \angle c \).
(iv) vertically opposite angle to \( \angle f \).
(v) angle(s) that form a linear pair with \( \angle e \).

Q.14 In the adjacent figure, line \( p \parallel q \) and 'r' is the transversal. If \( \angle b = 70^\circ \), find all the other angles.

Q.15 In the adjacent figure, \( l \parallel m \) and \( p \parallel q \). Find the values of a, b, c and d.
Q. 16 In the adjacent figure, AB II EF. Find ‘x’ and ‘y’.

Q. 17 In the adjacent figure, AB II CD. Find x, y and z.

Q. 18 In the adjacent figures, p II q. Find \( \angle x \), \( \angle y \), \( \angle a \) and \( \angle b \).

Q. 19 In the adjoining figure, lines l and m are parallel. Find the values of x, y and z.

Q. 20 In the figure, AB II CD and Q is any point in between them such that \( \angle BPQ = 20^\circ \) and \( \angle QRD = 30^\circ \). Find \( \angle PQR \).