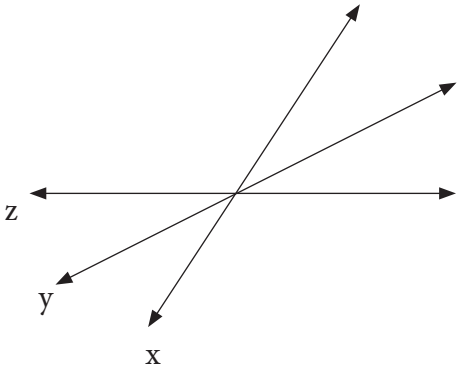
14

Lines and Angles

Q1. Tick the correct option:

In the figure given below, the lines *x, y and z* are:



a. Concurrent lines

b. Parallel lines

c. Perpendicular lines

Q2. Points A, B and C are collinear points. Points P, Q and R are also collinear points. If A and P are also collinear is it necessary that all the points A, B, C, P, Q and R will be collinear. Explain with the help of a diagram.

Answer: _____

Q3. Fill in the blanks:

a. A line segment has _____ length.

b. A _____ has indefinite length and only one end point.

c. _____ line(s) can pass through two given points.

d. The opposite sides of a ladder represent _____ lines.

Q4. ∠ABC and ∠PQR are congruent. Will the reflex angle ∠ABC and reflex angle ∠PQR also be congruent?

Answer: _____

Q5. Match the following:

Three right angles	135°
$\frac{1}{6}$ of a right angle	204°
$\frac{3}{4}$ of a straight angle	270°
24° more than twice of a right angle	15°

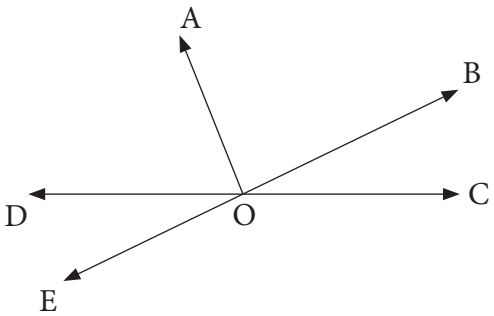
Q6. Two supplementary angles are in the ratio 3:5. Find the measure of the two angles.

Answer: _____

Q7. ∠ABC is thrice of ∠PQR. If ∠PQR = 39° 24', find the measure of ∠ABC.

Answer: ∠ABC = _____

Q8. In the given figure, ∠AOB is a right angle. ∠DOE is one-sixth of a straight angle. Find the measure of all the angles.



a. ∠AOB = _____

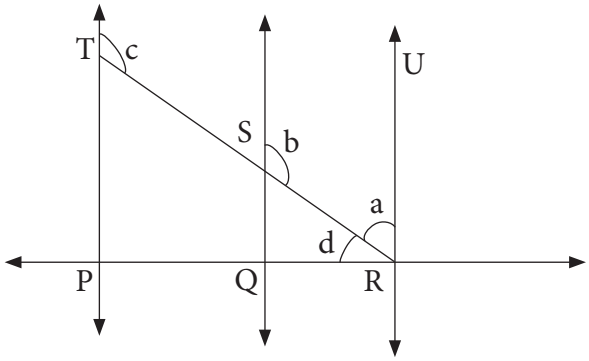
b. ∠DOE = _____

c. ∠BOC = _____

d. ∠AOD = _____

e. ∠EOC = _____

Q9. In the given figure, PT ⊥ PR and PT || QS || RU. If RS is the angle bisector of ∠URQ, find a, b, c and d.



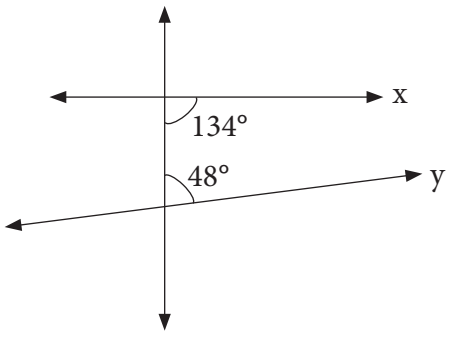
a = _____

b = _____

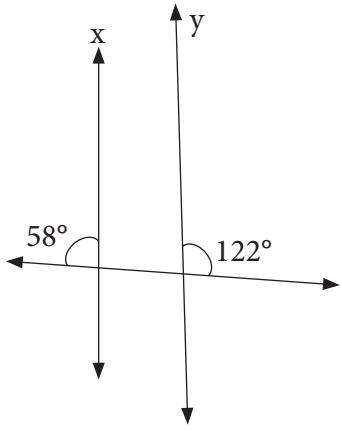
c = _____

d = _____

Q10. From the given figures tick the figure in which lines x || y:



(a)

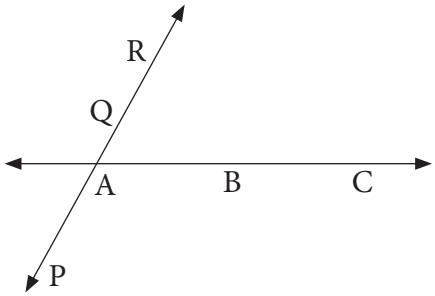


(b)

Answers

1. (a)

2. No



3. a. fixed; b. ray, c. one, d. parallel

4. Yes

5.

Three right angles	270°
$\frac{1}{6}$ of a right angle	15°
$\frac{3}{4}$ of a straight angle	135°
24° more than twice of a right angle	204°

6. 67.5°, 112.5°

7. 118°12’

8. a. 90°; b. 30°; c. 30°; d. 60°; e. 150°

9. a = 45°; b = 135°; c = 135°; d = 45°

10. (b)