



INDIAN SCHOOL AL WADI AL KABIR

Department: Mathematics

Class X

Worksheet – Triangles

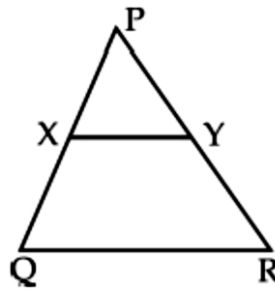
(MCQ & Assertion Reasoning)

12 – 08 - 2024

Questions of 1 mark each

Q.1.

In the given figure, $XY \parallel QR$, $\frac{PQ}{XQ} = \frac{7}{3}$ and $PR = 6.3\text{cm}$, then YR equals



A

2.7 cm

B

18.9 cm

C

2.1 cm

D

0.9 cm

Q.2.

In $\triangle DEW$, $AB \parallel EW$. If $AD = 4\text{ cm}$, $DE = 12\text{ cm}$ and $DW = 24\text{ cm}$, then the value of DB is

A

2 cm

B

8 cm

C

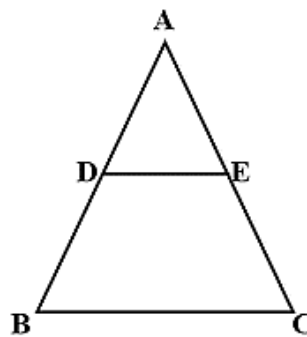
4 cm

D

6 cm

Q.3.

In Fig, in $\triangle ABC$, $\frac{AD}{BD} = \frac{AE}{CE}$ and $\angle ADE = 70^\circ$ and $\angle ACB = 50^\circ$ then $\angle BAC$ is



A

70°

B

50°

C

80°

D

60°

Q.4.

If $\triangle ABC$ and $\triangle PQR$ are similar triangles such that $\angle P = 40^\circ$ and $\angle B = 55^\circ$, then $\angle R$ is

A

85°

B

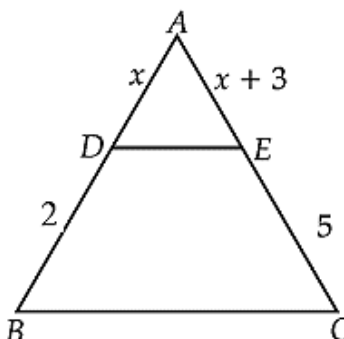
95°

C

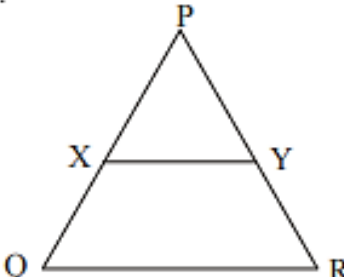
90°

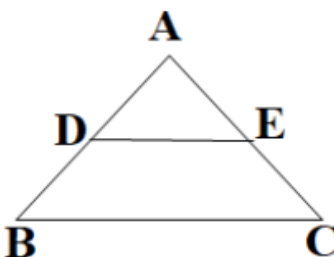
D

100°

Q.5.	In ΔABC , if $DE \parallel BC$, then the value of x is							
								
A	4	B	2	C	3	D	6	

Q.6.	In triangles PQR and MST, $\angle P = 55^\circ$, $\angle Q = 25^\circ$, $\angle M = 100^\circ$ and $\angle S = 25^\circ$, then							
A	$\Delta TSM \sim \Delta PQR$	B	$\Delta TSM \sim \Delta QPR$	C	$\Delta MST \sim \Delta QRP$	D	$\Delta TMS \sim \Delta RQP$	

Q.7.	In the given figure, $XY \parallel QR$ and $\frac{PX}{XQ} = \frac{PY}{YR} = \frac{1}{2}$, then							
								
A	$XY = QR$	B	$XY = \frac{1}{3} QR$	C	$XY = \frac{2}{3} QR$	D	$XY = \frac{1}{2} QR$	

Q.8.	In the given figure, $DE \parallel BC$, $AE = a$ units, $EC = b$ units, $DE = x$ units and $BC = y$ units. Which of the following is true?							
								
A	$x = \frac{a+b}{ay}$	B	$x = \frac{ay}{a+b}$	C	$x = \frac{ax}{a+b}$	D	$\frac{x}{y} = \frac{a}{b}$	

Q.9.	If $\Delta ABC \sim \Delta DEF$, $AB = 6\text{cm}$, $DE = 9\text{cm}$, $EF = 6\text{cm}$ and $FD = 12\text{cm}$, then the perimeter of ΔABC is							
	A	28 cm	B	28.5 cm	C	18 cm	D	23 cm
Q.10.	The perimeters of two similar triangles ABC and PQR are 56 cm and 48 cm respectively. Then $\frac{PQ}{AB}$ is equal to							
	A	$\frac{7}{8}$	B	$\frac{6}{7}$	C	$\frac{7}{6}$	D	$\frac{8}{7}$
ASSERTION AND REASONING								
	DIRECTION: In question numbers 11 and 12, a statement of Assertion (A) is followed by a statement of Reason (R). Choose the correct option. (a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A) (b) Both Assertion (A) and Reason (R) are true and Reason (R) is not the correct explanation of Assertion (A) (c) Assertion (A) is true but reason (R) is false. (d) Assertion (A) is false but reason (R) is true.							
Q.11.	Assertion: If ΔABC and ΔPQR are congruent triangles, then they are also similar triangles. Reason: All congruent triangles are similar but the similar triangles need not be congruent.							
Q.12.	Assertion: All regular polygons such as equilateral triangles, squares etc. are similar. Reason: Two polygons of the same number of sides are said to be similar, if their corresponding angles are equal and lengths of corresponding sides are proportional.							

ANSWERS

Q.1	A	Q.2	B	Q.3	D	Q.4	A	Q.5	B	Q.6	A
Q.7	B	Q.8	B	Q.9	C	Q.10	B	Q.11	a	Q.12	a