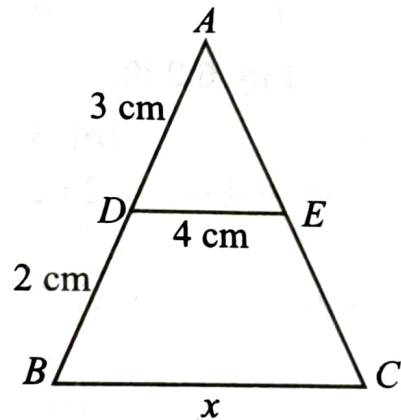


## MULTIPLE CHOICE QUESTIONS

1. In Fig. 6.218, if  $DE \parallel BC$ , then  $x$  equals:



**Fig. 6.218.**

(a) 3 cm

(b) 2 cm

(c) 4 cm

(d) 6.7 cm

2.  $\triangle ABC \sim \triangle PQR$ . If  $\text{ar}(\triangle ABC) = 2.25 \text{ m}^2$ ,  $\text{ar}(\triangle PQR) = 6.25 \text{ m}^2$ ,  $PQ = 0.5 \text{ m}$ , then length of  $AB$  is:  
 (a) 30 cm (b) 0.5 m (c) 50 cm (d) 3 m
3. Corresponding sides of two similar triangles are in the ratio 5 : 7. Areas of these triangles are in the ratio of  
 (a)  $\sqrt{5} : \sqrt{7}$  (b) 7 : 5 (c) 25 : 49 (d) 49 : 25
4. If  $\triangle PQR \sim \triangle XYZ$ ,  $\angle Q = 50^\circ$  and  $\angle R = 70^\circ$ , then  $\angle X$  is equal to:  
 (a)  $70^\circ$  (b)  $50^\circ$  (c)  $120^\circ$  (d)  $60^\circ$
5. In triangles  $ABC$  and  $DEF$ ,  $\angle B = \angle E$ ,  $\angle C = \angle F$  and  $AB = 3DE$ . Then, the two triangles are  
 (a) Congruent but not similar (b) Neither congruent nor similar  
 (c) Similar but not congruent (d) Congruent as well as similar
6. In the given figure, if  $\angle ADE = \angle ABC$ , then  $CE$  is equal to:

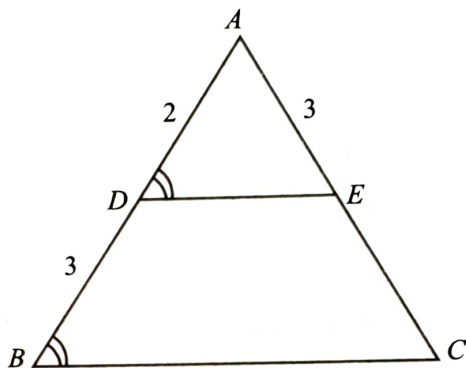


Fig. 6.219.

- (a) 2 (b) 5 (c) 4.5 (d) 3
7. Which of the followings are not the sides of a right triangle  
 (a) 9 cm, 15 cm, 12 cm (b) 2 cm, 1 cm,  $\sqrt{5}$  cm  
 (c) 400 mm, 300 mm, 500 mm (d) 7 cm, 5 cm, 7 cm
8. In Fig. 6.220,  $ABCD$  is a trapezium in which  $AB \parallel EF \parallel DC$ . The length of  $AE$  is:

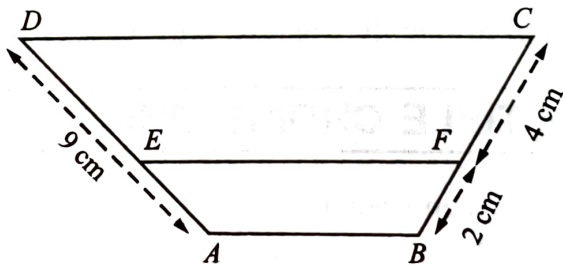


Fig. 6.220.

- (a) 2 cm (b) 3 cm (c) 4 cm (d) 7 cm
9. The lengths of the diagonals of a rhombus are 24 cm and 32 cm. The perimeter of the rhombus is:  
 (a) 9 cm (b) 128 cm (c) 80 cm (d) 56 cm
10. In  $\triangle XYZ$  and  $\triangle PQR$

$$\frac{XZ}{PQ} = \frac{YX}{RQ} = \frac{YZ}{PR}$$

- (a)  $\Delta YXZ \sim \Delta PQR$  (b)  $\Delta XYZ \sim \Delta RQP$  (c)  $\Delta YXZ \sim \Delta RQP$  (d)  $\Delta ZYX \sim \Delta PQR$
11. Two equilateral triangles are similar by  
 (a) AAA similarity (b) SSS similarity (c) SAS similarity (d) All
12.  $PQ$  is drawn parallel to base  $BC$  of a  $\Delta ABC$  cutting  $AB$  at  $P$  and  $AC$  at  $Q$ . If  $AB = 4BP$  and  $CQ = 2$  cm, then  $AQ$  is equal to  
 (a) 2 cm (b) 4 cm (c) 6 cm (d) 8 cm
13. In the given Fig.  $\Delta ABC \sim \Delta DEF$ . If  $AB = 3DE$ ,  $\text{ar}(ABC) = 144 \text{ cm}^2$ , then  $\text{ar}(DEF)$  is

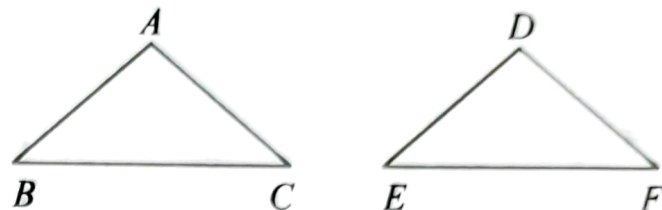


Fig. 6.221.

14. If the ratio of corresponding sides of two similar triangles is  $2 : 3$ , then the ratio of their corresponding altitudes is  
 (a)  $3 : 2$  (b)  $4 : 9$  (c)  $2 : 3$  (d)  $16 : 81$
15. In the given Fig. 6.224,  $DE \parallel AC$ , which of the following is true?

- (a)  $x = \frac{a+b}{xy}$  (b)  $y = \frac{ax}{a+b}$
- (c)  $x = \frac{ay}{a+b}$  (d)  $\frac{x}{y} = \frac{a}{b}$

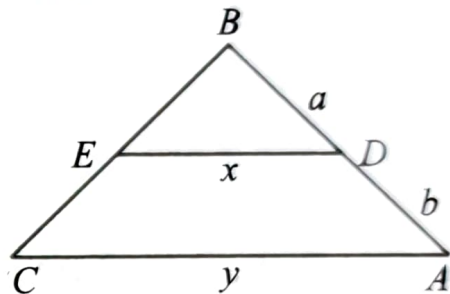


Fig. 6.222.

### Answers:

- |         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 1. (d)  | 2. (a)  | 3. (c)  | 4. (d)  | 5. (c)  |
| 6. (c)  | 7. (d)  | 8. (b)  | 9. (c)  | 10. (c) |
| 11. (d) | 12. (c) | 13. (b) | 14. (c) | 15. (c) |

### Solutions: