EXERCISE 9.2

Write True or False and justify your answer:

1. $ABCD$ is a parallelogram and X s the mid-point of AB. If ar$(AXCD) =$ 24 cm^2, then ar $(ABC) = 24$ cm^2.

2. $PQRS$ is a rectangle inscribed in a quadrant of a circle of radius 13 cm. A is any point on PQ. If $PS = 5$ cm, then ar $(PAS) = 30$ cm^2.

3. $PQRS$ is a parallelogram whose area is 180 cm^2 and A is any point on the diagonal QS. The area of $\triangle ASR = 90$ cm^2.

4. ABC and BDE are two equilateral triangles such that D is the mid-point of BC. Then

$$ar(BDE) = \frac{1}{4}ar(ABC). \tag{1}$$

5. In Fig. **??**, $ABCD$ and $EFGD$ are two parallelograms and G is the mid-point of CD.Then

$$ar(DPC) = \frac{1}{2}ar(EFGD). \tag{2}$$

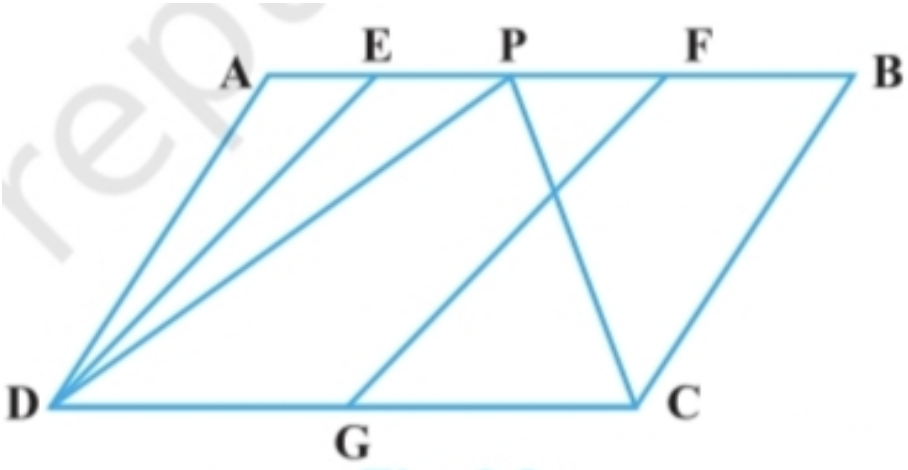

Fig. 9.8

Figure 1: