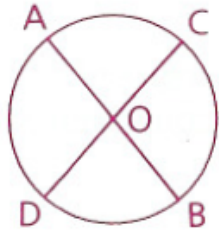


# Homework

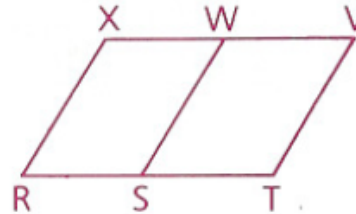
p. 32: 1-3, 5-9, 18, 19, 21, 22

1 Name the congruent segments.

a O is the midpoint of  $\overline{CD}$ .

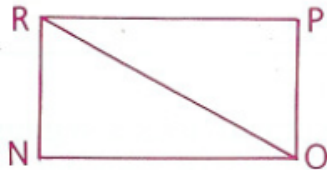


b  $\overline{SW}$  bisects  $\overline{XV}$ .

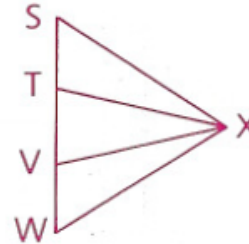


2 Name the congruent angles.

a  $\overrightarrow{RO}$  bisects  $\angle NRP$ .

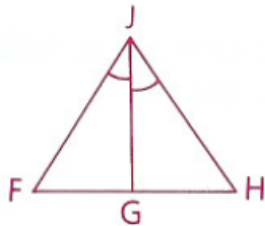


b  $\overrightarrow{XT}$  and  $\overrightarrow{XV}$  trisect  $\angle SXW$ .

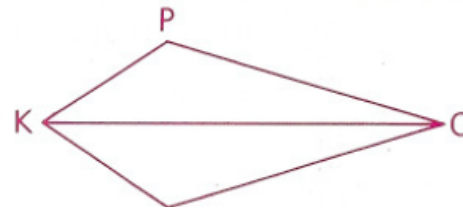


3 Name the angle bisector.

a



b  $m\angle POK = m\angle MOK$



5 B and C trisect  $\overline{AD}$ .

a Find the coordinates of B and C.

b Find AC.



p. 32: 1-3, 5-9, 18, 19, 21, 22

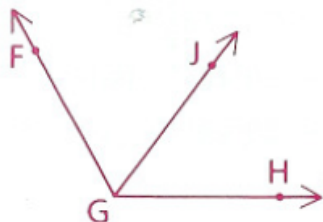
- 6 Given:  $OM = x + 8$ ,  
 $MP = 2x - 6$ ,  
 $OP = 44$

Is M the midpoint of  $\overline{OP}$ ?



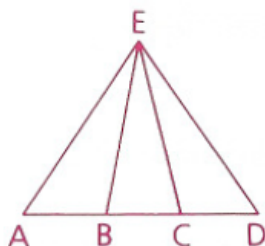
- 7 Given:  $m\angle FGJ = 3x - 5$ ,  
 $m\angle JGH = x + 27$ ;  
 $\overrightarrow{GJ}$  bisects  $\angle FGH$ .

Find:  $m\angle FGJ$

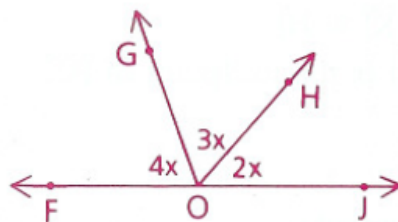


- 8 B and C are trisection points of  $\overline{AD}$ , and  $\overline{AD} = 12$ .

- a Find AB.  
 b Find AC.  
 c If  $AB = x + 3$ , solve for x.  
 d If  $AB = x + 3$  and  $AE = 3x + 6$ , find AE.  
 e What segment is C the midpoint of?  
 f Do  $\overrightarrow{EB}$  and  $\overrightarrow{EC}$  trisect  $\angle AED$ ?

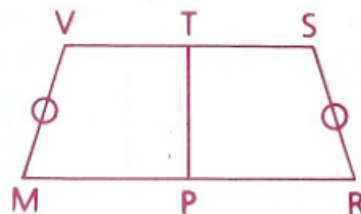


- 18  $\overrightarrow{OG}$  and  $\overrightarrow{OH}$  divide straight angle FOJ into three angles whose measures are in the ratio 4:3:2. Find  $m\angle FOG$ .



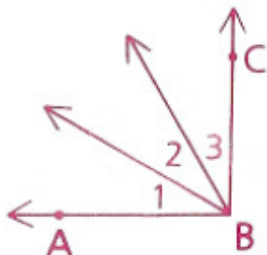
- 19 Given:  $\overleftrightarrow{TP}$  bisects  $\overline{VS}$  and  $\overline{MR}$ .  
 $\overline{VM} \cong \overline{SR}$ ,  
 $MP = 9$ ,  $VT = 6$ ,  
 perimeter of  $MRSV = 62$

Find: VM

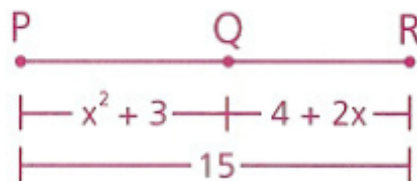


- 9 Given:  $\angle ABC = 90^\circ$ ,  
 $\angle 1 = (2x + 10)^\circ$ ,  
 $\angle 2 = (x + 20)^\circ$ ,  
 $\angle 3 = (3x)^\circ$

Has  $\angle ABC$  been trisected.



- 21 a Find the value of x.  
 b Is Q the midpoint of  $\overline{PR}$ ?



- 22 Given:  $\overrightarrow{OP}$  and  $\overrightarrow{OR}$  trisect  $\angle NOS$ .  
 $m\angle NOP = 3x - 4y$ ,  
 $m\angle POR = x - y$ ,  
 $m\angle ROS = y - 10$

Find:  $m\angle ROS$

