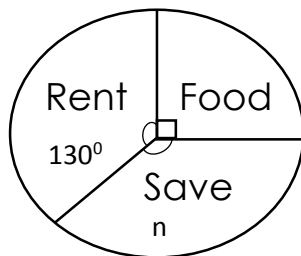


**MOTHERCARE PREPARATORY SCHOOLS**  
**HOLIDAY WORK ONE**  
**P.6 MATHEMATICS**

**PARALLEL LINES**

A pie-chart is also called a circle graph. Therefore, a circle graph is a complete revolution with  $360^\circ$  in terms of degrees, 100% in terms of percentages and a whole in terms of fractions.

1. The circle graph below shows the monthly expenditure of Joy. He saves sh. 280,000 monthly.



- (a) Find the value of n.  
 $n + 130^\circ + 90^\circ = 360^\circ$   
 $n + 220^\circ = 360^\circ$   
 $n + 220^\circ - 220^\circ = 360^\circ - 220^\circ$   
 $n = 360^\circ - 220^\circ$   
**n = 140°**

- (b) What is Josiah's monthly expenditure?

By using parts;

140 parts rep sh. 280,000

1 parts rep sh.  $\frac{280,000}{140}$

360 parts rep sh.  $\frac{280000}{140} \times 360$

sh. 2000 x 360

**sh. 720,000**

S.W

360

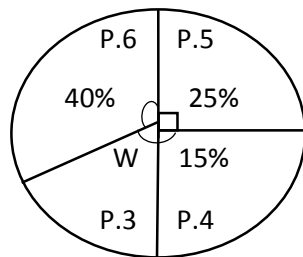
- 220

140

- (c) Express the degrees for food as a percentage of the total expenditure.

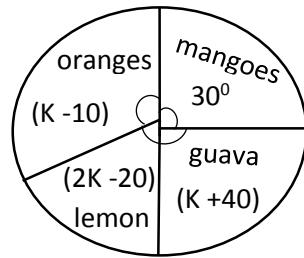
Food	<u>Percentage</u>
90°	25
	$\frac{90}{360} \times 100\%$
	1 x 25%
	<b><u>25%</u></b>

2. Covid-19 masks were served in different classes of Mothercare Preparatory school as shown in the pie-chart below;



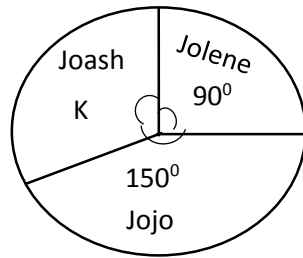
- (a) Find the percentage of masks served to P.3.
- (b) If 140 masks were served to Primary five, how many masks were served to the four classes?
- (c) How many more masks were served to P.6 than P.4?

3. The circle graph below shows the different fruits that Kalungi had in her basket.



- (a) Calculate the value of K.
- (b) If there were 280 oranges in the basket, how many fruits were in the basket?
- (c) How many more lemons were in the basket than mangoes?
- (d) If Kalungi sold each mango at sh.200, how much did she earn from all mangoes?

4. The circle graph below shows how Joan shared her money amongst her 3 family members.



- (a) Find the value of K.
- (b) If Joan had sh. 360,000, how much did each get?
- (c) Express Jojo's share as a fraction of the total share.
- (d) How more did Joash get than Jolene?

5. Tom divided his garden as follows;

$\frac{1}{3}$  for cassava,  $\frac{5}{12}$  for beans and the rest for maize. Use the information above to construct a pie-chart in a circle of radius 3cm.

**\*END\***