



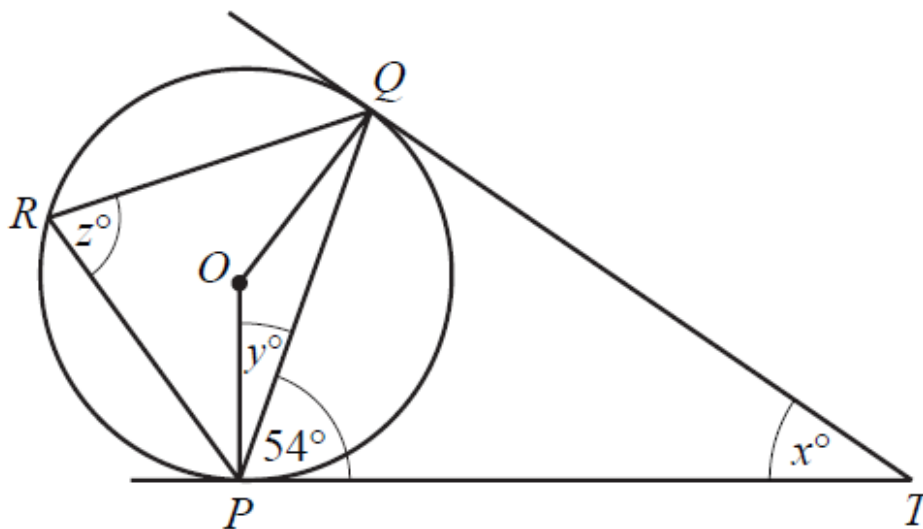
ÉCOLE GLOBALE

INTERNATIONAL GIRLS' SCHOOL
Dehradun

HOLIDAY HOMEWORK - CLASS IX A (Maths)

WORKSHEET 2

1.



NOT TO
SCALE

The points P , Q and R lie on a circle, centre O .
 TP and TQ are tangents to the circle.
Angle $TPQ = 54^\circ$.

Calculate the value of

(a) x ,

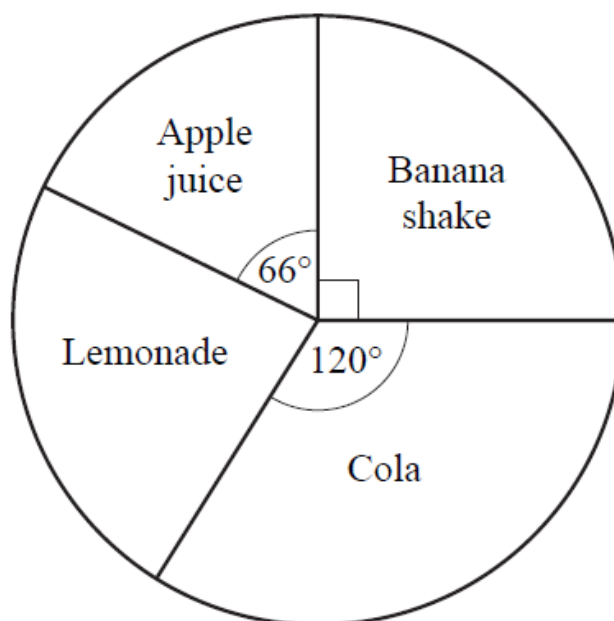
(b) y ,

(c) z .

2.

60 students recorded their favourite drink.

The results are shown in the pie chart.



- (a) **Calculate** the angle for the sector labelled Lemonade.
- (b) Calculate the number of students who chose Banana shake.
- (c) The pie chart has a radius of 3 cm.
Calculate the arc length of the sector representing Cola.

3.

Write the following as a single fraction in its simplest form.

$$\frac{x+1}{x+5} - \frac{x}{x+1}$$

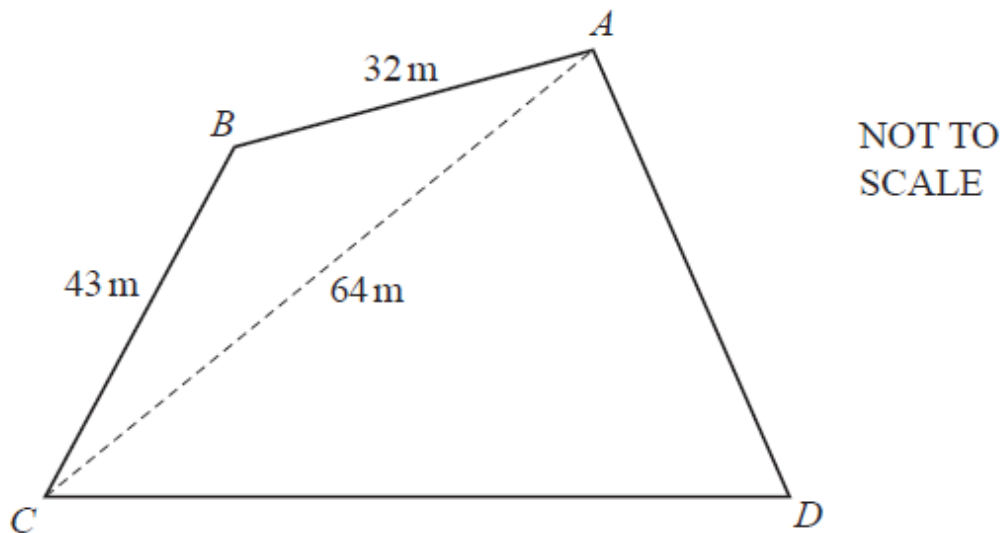
4.

Simplify

(a) $32x^8 \div 8x^{32}$,

(b) $\left(\frac{x^3}{64}\right)^{\frac{2}{3}}$.

5.



The diagram represents a field in the shape of a quadrilateral $ABCD$.
 $AB = 32$ m, $BC = 43$ m and $AC = 64$ m.

- (a) (i) Show clearly that angle $CAB = 37.0^\circ$ correct to one decimal place.
(ii) Calculate the area of the triangle ABC .
- (b) $CD = 70$ m and angle $DAC = 55^\circ$.

Calculate the perimeter of the whole field $ABCD$.

Points A , C and D lie on a circle centre O .
 BA and BC are tangents to the circle.
Angle $ABC = 32^\circ$ and angle $DAB = 143^\circ$.

- (i) Calculate angle AOC in quadrilateral $AOCB$.