

## **Tick or Trash—Circle Theorems**



## Nikki Gavin

| IVIKKI                     |                     | Gaviii W                           |
|----------------------------|---------------------|------------------------------------|
| Angle x is equal to 140°   | A 70° 0 x y C       | Angle y is equal to 140°           |
| Angle b is equal to 52°    | 48° 23° a           | Angle <i>a</i> is equal to 134°    |
| Angle u is equal to 26°    | $\frac{V}{V}$       | Angle $u$ is equal to $52^{\circ}$ |
| Angle PQR is equal to 124° | S 56° O Q           | Angle RPQ is equal to 34°          |
| Angle BAC is equal to 40°  | 80° 38° A 80° E C D | Angle OCB is equal to 40°          |

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## Tick or Trash—Circle Theorems

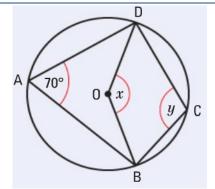


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Angle x is equal to 140°



Angle at centre double angle at circumference

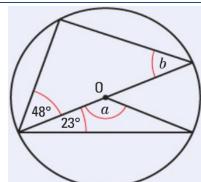


Angle y is equal to 140°

Angle y is 110°, as it is opposite angle in cyclic quadrilateral

Angle b is equal to  $52^{\circ}$ 

Angle b is 42°, as it is in a right angled triangle (diameter)



Angle a is equal to 134°

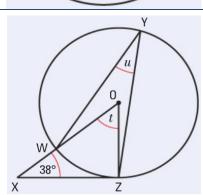


Isosceles triangle

Angle u is equal to  $26^{\circ}$ 



Angle at centre double angle at circumference, and XZO is 90°

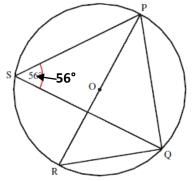


Angle u is equal to  $52^{\circ}$ 

Angle t is 52°, as ZO is a radius and so XZO is 90°

Angle PQR is equal to 124°

Angle PQR is 90°, as PR is a diameter



Angle RPQ is equal to

34



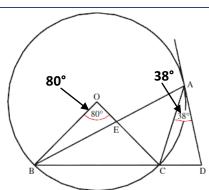
PRQ = 56° (same segment)

PQR = 90° (semicircle)

Angle BAC is equal to



Angle at centre double angle at circumference



Angle OCB is equal to  $40^{\circ}$ 

Angle OCB is 50°, as triangle OCB is isosceles