**Investigating Circles**

**1.** Working in **pairs**, cut out the card circles.

**2.** Using a **ruler**, measure the **diameter** of each circle to the nearest $0.1 cm$ – it helps if you fold the circle in half.

**3.** Using **string/tape measure**, measure the **circumference** of the circle to the nearest $0.1 cm$.

**4.** Calculate the value of $Circumference÷Diameter $to 2 decimal places.

|  |  |  |  |
| --- | --- | --- | --- |
| Circle | Diameter $d$($cm$) | Circumference $C$ ($cm$) | $$C÷d$$ |
| A |  |  |  |
| B |  |  |  |
| C |  |  |  |
| D |  |  |  |
| E |  |  |  |
| F |  |  |  |
| G |  |  |  |
| H |  |  |  |

**5.** Find the **radius** of each circle – remember that the **radius** is **half** of the **diameter**.

**6.** Draw around your circle onto **centimetre** **squared paper** and **estimate** its **area**.

**7.** Calculate the value of $Area÷Radius^{2} $to 2 decimal places.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Circle | Radius $r$($cm$) | Radius $r^{2}$ ($cm^{2}$) | Estimated area $A $($cm^{2}$) | $$A÷r^{2}$$ |
| A |  |  |  |  |
| B |  |  |  |  |
| C |  |  |  |  |
| D |  |  |  |  |
| E |  |  |  |  |
| F |  |  |  |  |
| G |  |  |  |  |
| H |  |  |  |  |

What do you notice?

A

B

E

D

F

G

C

H