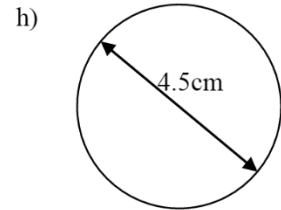
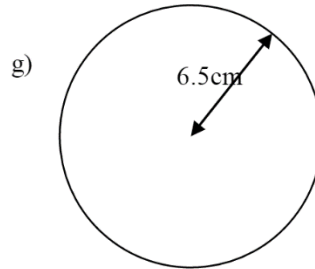
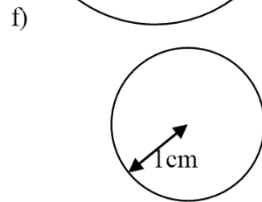
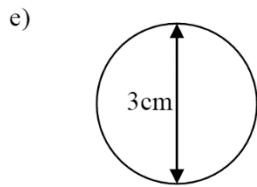
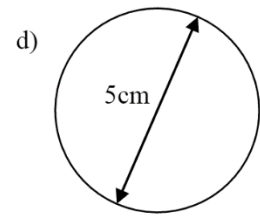
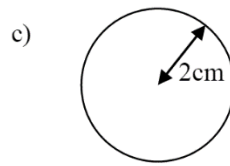
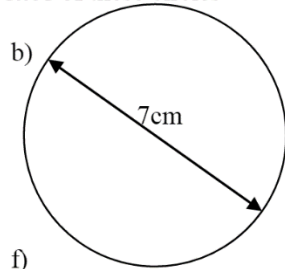
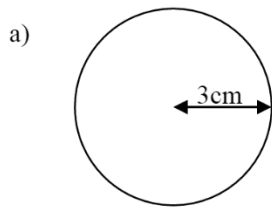
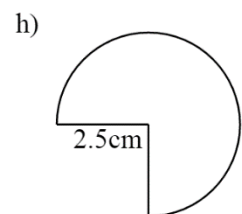
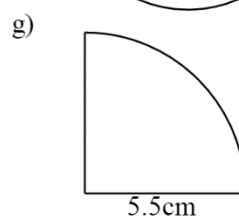
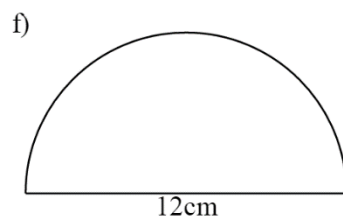
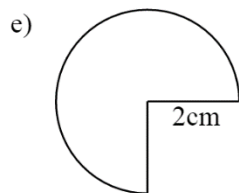
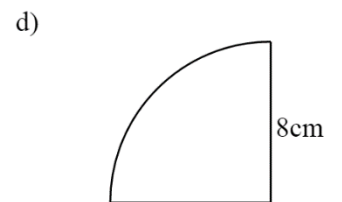
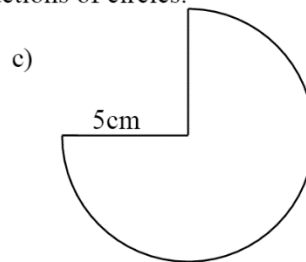
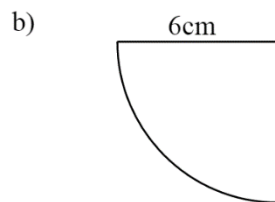
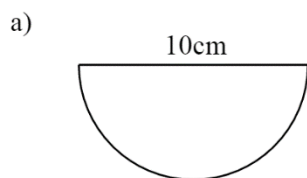


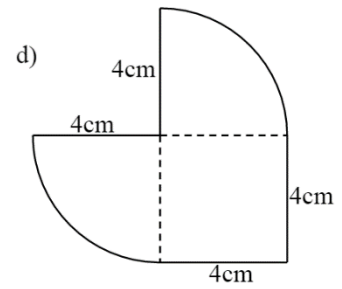
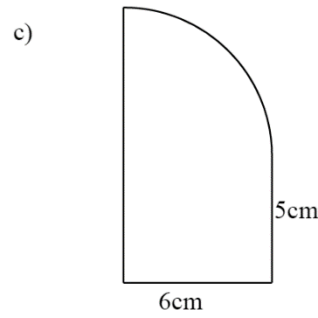
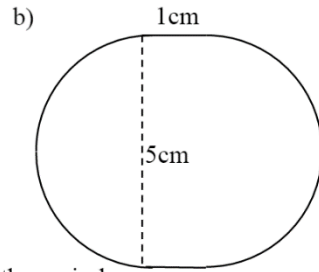
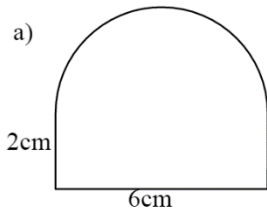
1. Find the **area** and **circumference** of these circles



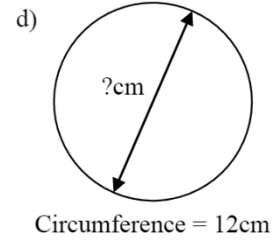
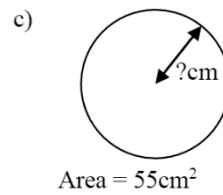
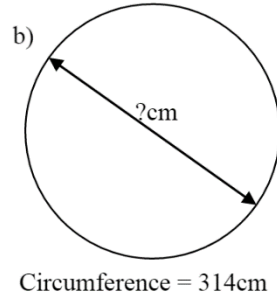
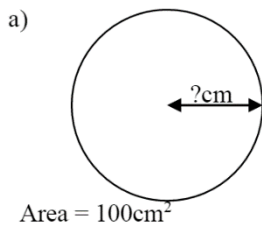
2. Find the **area** and **perimeter** of these shapes made from fractions of circles.



3. Work out the **area** of these shapes made from circles and rectangles.



4. Find the **missing lengths** in these circles



- | | | | |
|----------------------------------|-------------------------|---------------------------------|---------------------|
| 1a) Area = 28.3 cm ² | Circumference = 18.8 cm | 2a) Area = 39.3 cm ² | Perimeter = 25.7 cm |
| 1b) Area = 38.5 cm ² | Circumference = 22.0cm | 2b) Area = 28.3 cm ² | Perimeter = 21.4 cm |
| 1c) Area = 12.6 cm ² | Circumference = 12.6 cm | 2c) Area = 58.9 cm ² | Perimeter = 33.6 cm |
| 1d) Area = 19.6 cm ² | Circumference = 15.7 cm | 2d) Area = 50.3 cm ² | Perimeter = 28.6 cm |
| 1e) Area = 7.07 cm ² | Circumference = 9.42 cm | 2e) Area = 9.4 cm ² | Perimeter = 7.14 cm |
| 1f) Area = 3.14 cm ² | Circumference = 6.28 cm | 2f) Area = 56.5 cm ² | Perimeter = 30.8 cm |
| 1g) Area = 132.7 cm ² | Circumference = 40.8 cm | 2g) Area = 23.8 cm ² | Perimeter = 45.6 cm |
| 1h) Area = 15.9 cm ² | Circumference = 14.1 cm | 2h) Area = 14.7 cm ² | Perimeter = 16.8 cm |

- | | |
|---------------------------------|------------------------|
| 3a) Area = 26.1 cm ² | 4a) Radius = 5.64 cm |
| 3b) Area = 24.6 cm ² | 4b) Diameter = 99.9 cm |
| 3c) Area = 58.3 cm ² | 4c) Radius = 4.18 cm |
| 3d) Area = 41.1 cm ² | 4d) Diameter = 3.82 cm |