Homework/Extension
Step 4: Circles

National Curriculum Objectives:

Mathematics Year 6: (6G5) Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)
Developing Underline the diameter of the circles, where the radius is directly divisible by 2. Measurements given in whole mm, cm and m.
Expected Underline the diameter of the circles, where the radius is not always a whole number. Measurements given in mm, cm or m.
Greater Depth Underline the diameter of the circles, where the radius or diameter is not always a whole number, and is sometimes presented as a fraction. Measurements given in mm, cm or m and may need converting.

Questions 2, 5 and 8 (Varied Fluency)
Developing Identify if the statements about the radius or diameter of circles are true or false. Includes circles where the radius is directly divisible by 2. Measurements given in whole mm, cm and m.
Expected Identify if the statements about the radius or diameter of circles are true or false. Includes circles where the radius is not always a whole number. Measurements given in mm, cm or m.
Greater Depth Identify if the statements about the radius or diameter of circles are true or false. Includes circles where the radius or diameter is not always a whole number, and is sometimes presented as a fraction. Measurements given in mm, cm or m and may need converting.

Questions 3, 6 and 9 (Reasoning and Problem Solving)
Developing Explain which circle is the odd one out. Includes circles where the radius is directly divisible by 2. Measurements given in whole mm, cm and m.
Expected Explain which circle is the odd one out. Includes circles where the radius is not always a whole number. Measurements given in mm, cm or m.
Greater Depth Explain which circle is the odd one out. Includes circles where the radius or diameter is not always a whole number, and is sometimes presented as a fraction. Measurements given in mm, cm or m and may need converting.

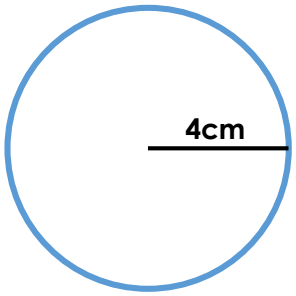
More Year 6 Statistics resources.

Did you like this resource? Don't forget to review it on our website.

Circles

1. Underline the correct diameter of the circles below.

A.



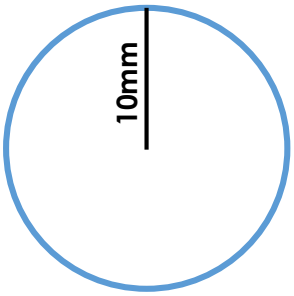
4cm

6cm

2cm

8cm

B.



10mm

20mm

5mm

15mm

D

VF
HW/Ext

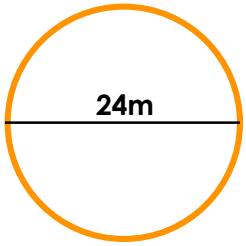
2. True or false?

i. Circle A has a radius of 24m.

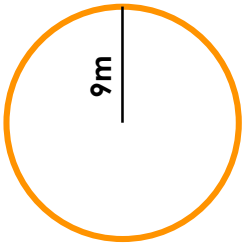
ii. Circle B has a diameter of 18m.

iii. The radius of A is larger than B.

A



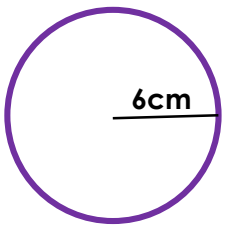
B



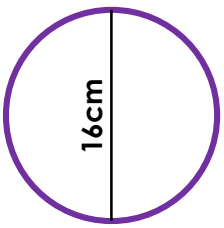
D

VF
HW/Ext

3. Find the odd one out.



A



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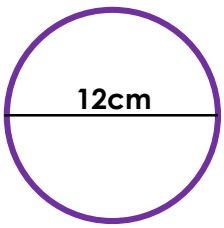
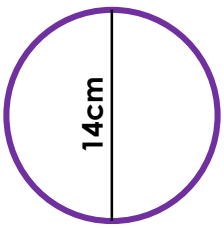
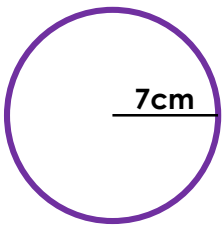


C



D



E

Explain your reasoning.

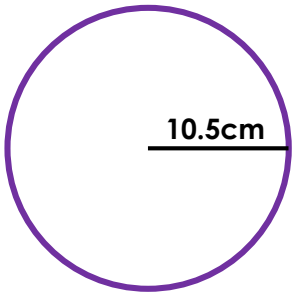
D

RPS
HW/Ext

Circles

4. Underline the correct diameter of the circles below.

A.



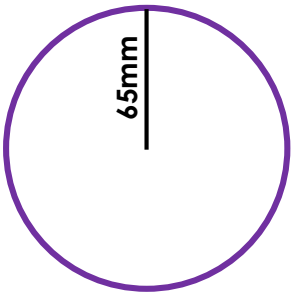
20cm

20.5cm

5.5cm

21cm

B.



125mm

120mm

130mm

30mm

E

VF
HW/Ext

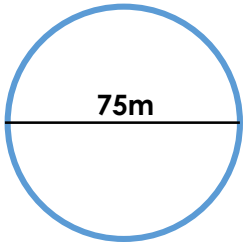
5. True or false?

i. Circle A has a radius of 37m.

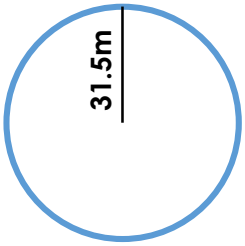
ii. Circle B has a diameter of 63m.

iii. The radius of B is larger than A.

A



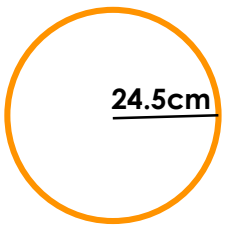
B



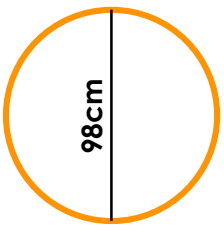
E

VF
HW/Ext

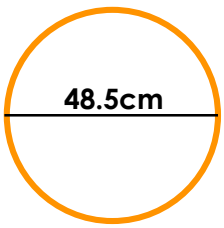
6. Find the odd one out.



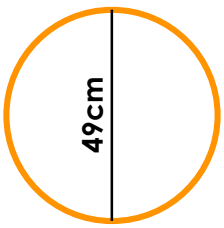
A



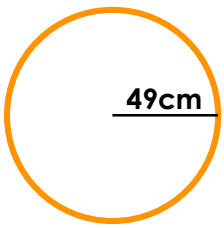
B



C



D



E

Explain your reasoning.

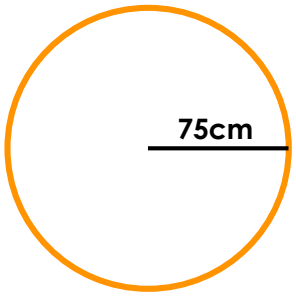
E

RPS
HW/Ext

Circles

7. Underline the correct diameter of the circles below.

A.



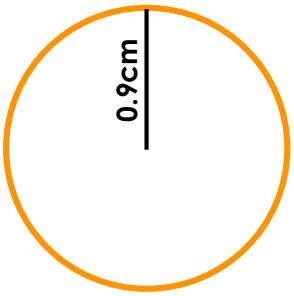
75m

150mm

0.75m

1.5m

B.



9cm

18cm

1.8m

18mm

GD

VF
HW/Ext

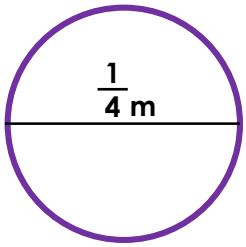
8. True or false?

i. Circle A has a radius of 250cm.

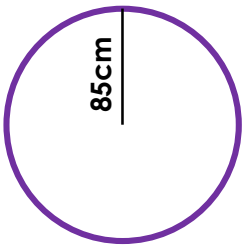
ii. Circle B has a diameter of 170m.

iii. The diameter of B is larger than A.

A



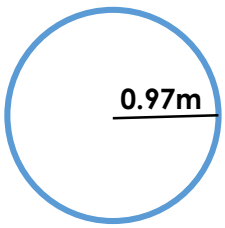
B



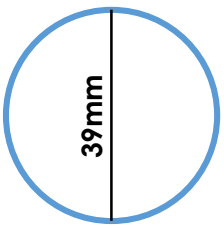
GD

VF
HW/Ext

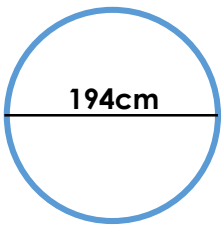
9. Find the odd one out.



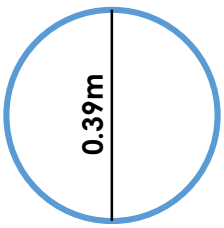
A



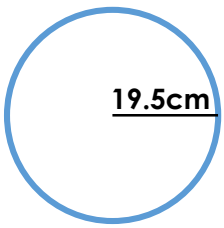
B



C



D



E

Explain your reasoning.

GD

RPS
HW/Ext

Homework/Extension
Circles

Developing

1. A – 8cm, B – 20mm
2. i – False, circle A has a diameter of 24cm and a radius of 12cm, ii – True, iii – True
3. B is the odd one out because the other circles can be paired by radius and diameter. Circles A and C match and circles D and E match.

Expected

4. A – 21cm, B – 130mm
5. i – False, circle A has a radius of 37.5cm, ii – True, iii – False, the radius of A is larger than B.
6. C is the odd one out because the other circles can be paired by radius and diameter. Circles A and D match and circles B and E match.

Greater Depth

7. A – 1.5m, B – 18mm
8. i – False, circle A has a radius of 125cm, ii – False, circle B has a diameter of 170cm, iii – True
9. B is the odd one out because the other circles can be paired by radius and diameter. Circles A and C match and circles D and E match.