1) 


2) twice
half
3)

|  | Radius | Diameter |
| :---: | :---: | :---: |
| A | 6 cm | 12 cm |
| B | 4 cm | 8 cm |
| C | 8 cm | 16 cm |

4) 

| Radius | Diameter |
| :---: | :---: |
| 5.5 cm | 11 cm |
| 6.5 cm | 13 cm |
| 3.75 cm | $\mathbf{7 . 5} \mathbf{c m}$ |

1) They are both incorrect. The diameter and radius should be measured using the centre of a circle. The diameter goes from one point on the circumference through the centre and straight across to the opposite point of the circumference. The radius goes from the centre of the circle to one point on
 the circumference.
2) a) False. The radius is half the diameter.
b) True. The radius of a circle is half the diameter so $\mathbf{7 c m}$ divided by $\mathbf{2}$ is $\mathbf{3 . 5} \mathbf{c m}$.
c) False. The radius is half the diameter so it is always smaller.
3) Possible solutions include:

| Diameter of A | Diameter of B |
| :---: | :---: |
| 3 cm | 18 cm |
| 12 cm | 72 cm |
| 2 cm | 12 cm |

4) $35 \mathrm{~mm}=3.5 \mathrm{~cm}$
$3.5 \mathrm{~cm} \times 6=21 \mathrm{~cm}$
$21 \mathrm{~cm}+4 \mathrm{~cm}=25 \mathrm{~cm}$
The largest circle has a diameter of $\mathbf{2 5 c m}$.
5) Each circle has a radius of 2.5 cm .

The rectangle is 15 cm in length and fits 3 circles in. $15 \mathrm{~cm} \div 3=5 \mathrm{~cm}$
The diameter of each circle is 5 cm . The radius of a circle is half its diameter.
$5 \mathrm{~cm} \div 2=2.5 \mathrm{~cm}$
2) a) Cake $C, E$ and $F$ in one box and cake $A, B$ and $D$ in the other.
b) 10.5 cm

