5th July **Higher 5-a-day**

Corbettmaths

What is the probability of rolling a six, three times in a row on an ordinary dice?

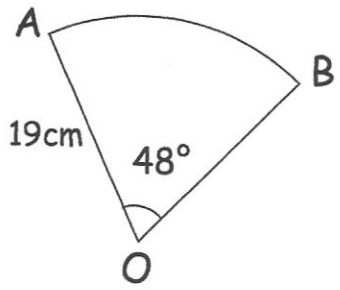
$\frac{1}{6} \times \frac{1}{6} \times \frac{1}{6} = \frac{1}{216}$

Ella has a 4 digit padlock.
Each dial can be set to 0, 1, 2, 3, 4, 5

Work out the total number of different combinations that have four different digits.

$6 \times 5 \times 4 \times 3$

360



Find the area of the sector OAB.

$\frac{48}{360} \times \pi \times 19^2$

$151.2\ cm^2$

Plank A
Volume = $750cm^3$
Mass = 900g
$1.2g/cm^3$

Plank B
$15200\ cm^3$
Volume = $0.0152m^3$
Mass = 7.6kg
7600
$0.5g/cm^3$

Plank C
Volume = $1000cm^3$
Mass = 1.02kg
1020g
$1.02g/cm^3$

Mr.Dixon is building a toy boat for his son. He has three different planks of wood to choose from.
If wood has a density under $1g/cm^3$, it will float.

Which plank of wood is the most suitable?

Explain your answer.

$d = m \div v$

(A) $900 \div 750 = 1.2\ g/cm^3$

(B) $7600 \div 15200 = 0.5\ g/cm^3$ ✓

(C) $1020 \div 1000 = 1.02\ g/cm^3$

B has a density under $1g/cm^3$