



Table number	School



## FMSP Year 10 Maths Feast 2015 Support Materials

### Comparison Round (30 marks)

Compare the answer to A with the answer to B, then ring the correct statement.

1.

A:  $0.9^5$

B:  $0.9^4$

A < B

A = B

A > B

2.

A: 7th Fibonacci number

B: 7th Prime number

A < B

A = B

A > B

3.

A: Area of a circle, radius 5 cm.

B: Area of a regular hexagon, sides of length 5 cm.

A < B

A = B

A > B

4. A box contains a full set of chess pieces (all randomly mixed).

A: The probability of picking at random a black piece

B: The probability of picking at random a pawn

A < B

A = B

A > B

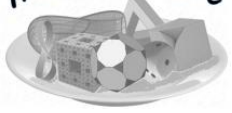


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5.

Vikram and Walter are growing tomatoes plants.

Vikram observes that the height of his plant is growing 0.5 cm per day.

Walter observes that the height of his plant is growing 10% per day.

On Monday, Vikam's tomato plant has a height of 20 cm and Walter's tomato plant has a height of 15 cm.

**A:** The height of Vikram's tomato plant on Friday

**B:** The height of Walter's tomato plant on Friday

**A < B**

**A = B**

**A > B**

6.

A sailing race is held around a triangular course marked out by three buoys P, Q and R.

The bearing of R from P is  $110^\circ$ .

The bearing of R from Q is  $170^\circ$ .

Distance PQ = Distance PR

**A:** The size of the angle PQR

**B:** The size of the angle QPR

**A < B**

**A = B**

**A > B**

7.

**A:** The surface area of a cube with edges of length 8 cm.

**B:** The surface area of a cuboid with dimensions 16cm by 8 cm by 4 cm.

**A < B**

**A = B**

**A > B**



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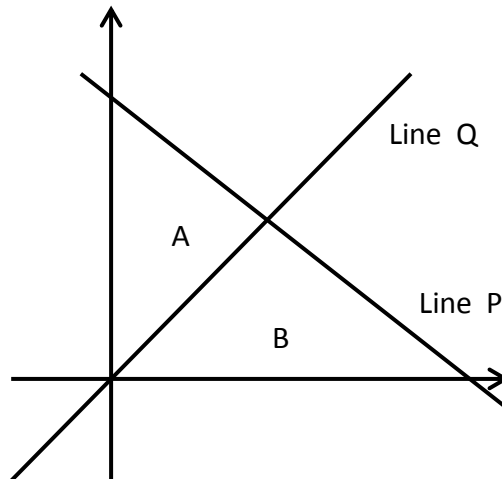
8.

Line P has the equation  $2x + 3y = 12$ .

Line Q has the equation  $3y = 2x$ .

A: The area of the triangle A

B: The area of the triangle B



**A < B**

**A = B**

**A > B**

9.  $a = 6 \times 10^2$  and  $b = 3 \times 10^{-2}$

A: Value of  $ab$

B: Value of  $\frac{3a}{b + 99}$

**A < B**

**A = B**

**A > B**

10.

Anna plays for her local girls football teams.

Below is the list of the number of goals she scores in ten matches:

1, 1, 0, 0, 3, 1, 2, 0, 1, 1

A: The median number of goals Anna scores

B: The mean number of goals Anna scores

**A < B**

**A = B**

**A > B**