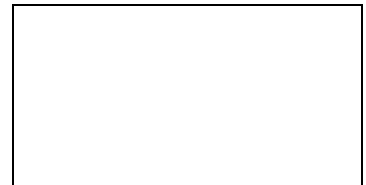# RELAY ROUND

- Time allowed is 40 minutes.

- Teams will work in pairs, in separate parts of the room.

- There are 30 questions in total, 15 for Pair A and 15 for Pair B.

- *Two* marks are awarded for every answer correct. Pairs will have two chances to answer each question and there is no penalty for giving a correct answer at the second attempt. A question is marked either correct or incorrect and no partial marks are awarded.

A1. What is the value of: 200 x 300?

B8. What is the value of: 2012 + 201 x 20 ÷ 2?

B1. I buy 14 stamps at 46p each. How much change will I get from £10?

A9. The front row of the theatre has 48 seats and each row has 4 more seats

than the row in front. The last row has 80 seats.

How many rows are there in the theatre?

A2 The journey by car to our holiday cottage takes $7\frac{3}{4}$ hours. We left at 05:20.

What time did we arrive?

B9. I have a jar of 48 sweets on my desk at work. I open the jar on a Monday and do not work any weekends. I eat 3 sweets over 2 days, on what day of the week will the jar become empty?
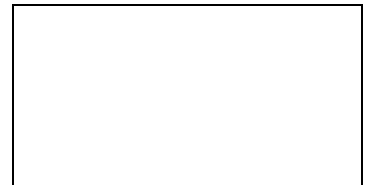
B2 A cube is made up of 64 smaller cubes. How many of the smaller cubes will
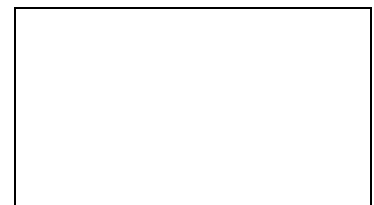
have exactly 2 faces showing?

A10. What is the value of: 20 + 12 ÷12 + 20?

A3. One of the angles of a triangle is 80^0. One of the other two angles is 60^0

more than the third angle. What type of triangle do I have?

B10. Two 'choc' bars and three 'crunch' bars cost £3-50.

Four 'choc' bars and three 'crunch' bars cost £4-00.

How much does a 'crunch' bar cost?

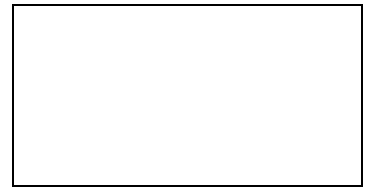**B3.** What is the value of: 11 x 11 x 11?

A11. A kite, whose longest diagonal is 20cm, has an area of 100cm^2.

What is the length of the shorter diagonal?

A4. The area of a right-angled isosceles triangle is 32 cm². What is the length
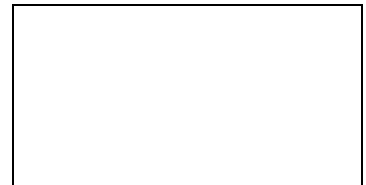
of the two equal sides?

B11. What are the first three consecutive prime numbers that sum to a prime

number?

B4. The train left the station at 10:05, 5 minutes late, and arrived at its

Destination at 14:55, 20 minutes late.

How long should the journey have taken if the train left and arrived on

time?

A12. At my birthday party, each child has 3 cupcakes and the 11 adults

have 2 cupcakes each. There are three times as many children as adults.

I buy the cupcakes in packets each containing one dozen.

How many packets do I need to buy?

A5. I am thinking of a number that ends in a 1, is a three digit square number

and its first two digits form a square number.

What is the number?

B12. What is the value of: $\dfrac{1+2}{3} + \dfrac{4+5}{6} + \dfrac{7+8}{9}?$

B5. I think of a number, add 2, divide by 5 and then subtract 1. I finish with 6.

What was the number that I started with?

A13. The rear tyres of our family car have to be changed after every 30000km, the front after 25000km.

After how many kilometres will all the tyres have to be changed at the same time?

A6. At the local fair I and my friends pay £1 for each game we play. If we play 40 games between us and win £3 for $\frac{1}{20}$th of the games and £1 for $\frac{1}{8}$th of the games, how much do we gain or lose during our visit to the fair?
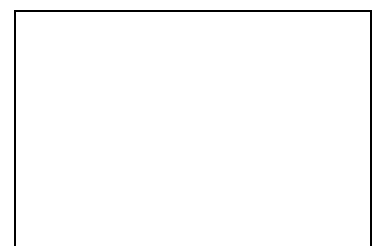
B13. A quadrilateral has three equal angles. The fourth is the sum of two of the angles. How many degrees are there in this, fourth, angle?

B6. What is the sum of all the prime numbers between 40 and 60?

A14. What is the value of: $\dfrac{1}{2+3} + \dfrac{4}{5} + \dfrac{6}{7+8} + 9?$

A7. It takes $2\frac{1}{2}$ minutes to fill a bath with 80 litres of water.

How many litres is that every minute?

B14. Two prime numbers differ by 54 and sum to 140, what are the two

prime numbers?

B7. The car journey at the start of the holidays took 8 hours including a 45

minute stop for refreshments.

If we averaged 60 kilometres per hour while driving how far did we drive?

A15. Rearrange the digits of: 45 + 13 so that the answer is a prime number.

Write down the prime number.

A8. Every day dad eats 2 cereal biscuits, his wife $1\frac{1}{2}$ and the children

eat 4 between them.

A box of 96 is opened, how many days will that box last before another

box is needed?

B15. In a recent competition the £180000 prize money was shared by the

72 winners. How much did each receive?