

BMAT Maths Compilation



Ratios

16 A city football club collected money for charity at all of its matches for a year. At the end of the year the total collected was divided among three charities, A, B and C, in the ratio $1:\frac{2}{3}:\frac{4}{5}$. Charity C received £3000.

What was the total amount collected for charity during the year?

- A £3750
- B £7000
- C £8 250
- D £9000
- E £9250
- F £12375

2015

24 The new sign for a local business contains two different sections. One of the sections will be produced from wood, while the other will be metal. Metal is three times as expensive as wood. The cost of metal needed for each sign is proportional to the diameter of the sign, while the cost of wood needed is proportional to the square of the diameter. If the diameter of the sign is doubled, then the total cost of the materials will be tripled.

What percentage (to the nearest 1%) of the sign is metal?

- A 25%
- B 33%
- C 50%
- D 67%
- E 75%

2012