

$$\sqrt{170,425} \approx 400\text{km}$$

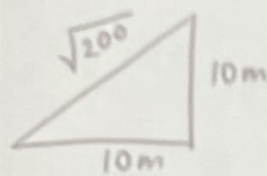
$$365 \times 24 \approx 400 \times 20 = 8,000 \text{ hours}$$

ROB EASTAWAY

$$8 \overline{) 5.76} \approx 71\%$$

$$8 \text{ billion} \div 20 = 400 \text{ million cats}$$

MATHS ON THE BACK OF AN ENVELOPE



$$\pi \approx 3$$

$$\begin{array}{r} 190 \\ 120 \\ 8 \\ \hline 396 \\ 130 \\ \hline 41 \end{array}$$

$$£ 2.85$$

$$4832 \div 5000$$

$$4.12 \div 2.05 \approx 200$$

**CLEVER WAYS TO (ROUGHLY)
CALCULATE ANYTHING**

$$\begin{array}{r} 9384 / 27 \\ \sim 9000 / 30 \end{array}$$

$$\frac{29 \quad 19 \quad 14 \quad 11 \quad 9}{59 \times 58 \times 57 \times 56 \times 55 \times 54} \approx 45 \text{ million}$$

$4 \times 8 \times 4 \times 8 \times 7 \times 1$

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ABOUT THE AUTHOR

Rob Eastaway has written or co-written twelve books, including the bestselling *Why Do Buses Come in Threes?* and *Maths for Mums and Dads* as well as *What Is a Googly?*, the acclaimed beginner's guide to cricket. He is the Director of Maths Inspiration, a national programme of theatre-based lecture shows for 15–17 year olds that has reached over 150,000 teenagers since it began in 2004.

Rob regularly gives talks to all age groups in primary and secondary schools, appears on BBC Radio 4's current affairs/numbers programme *More or Less*, and works closely with National Numeracy, the national charity that campaigns for better adult numeracy.

In 2017, Rob received the Zeeman medal for excellence in communication of maths to the general public.