

M8 = 12 days to go!

1 John and Jake roll a dice which is biased.

They both roll the dice a number of times.

The table below shows the results of their trials.

	Number of trials	Number of sixes	Relative frequency
John	60	13	$\frac{13}{60} = 0.22$
Jake	150	44	$\frac{44}{150} = 0.29$

(a) Calculate the relative frequencies, to 2 decimal places, for each boy and complete the table. [2]

(b) Which boy's trials give a more reliable estimate of the likelihood of rolling a six on this dice?

Give a reason for your answer.

$$P(6) = \frac{1}{6} = 0.1\bar{6}$$

→ 0.22 is closer →

Answer John because it is closer to $\frac{1}{6}$ [1]

27^{2/3}

$(\sqrt[3]{27})^2$
 $3^2 = 9$

9

(2)

Write the numbers below in the form 5^n

(a) 5

5¹

(1)

(b) 625

5⁴

(1)

(c) 1

5⁰

(1)

(d) 1/5

5⁻¹

(1)

(e) √5

5^{1/2}

(1)

(f) √125

125 → 5³

√ same as 1/2

5^{3/2}

(2)