

Kitbits competition

50

Percentages:
fractions,
decimals

CODE

5% →	I	0.06 →	W	10% →	H	$\frac{7}{50}$ →	C
0.15 →	N	$\frac{21}{100}$ →	D	0.22 →	T	$\frac{6}{25}$ →	Y
0.42 →	U	$\frac{1}{2}$ →	K	$\frac{3}{4}$ →	A	0.8 →	O

Win a Spykit,
Technokit
or Mystery kit

1 (a) Decode the message. You will have to think of each fraction in another way.

Message

6%	$\frac{1}{10}$	$\frac{5}{100}$	14%	0.1	50%	$\frac{1}{20}$	22%	0.21	80%		
24%	$\frac{4}{5}$	42%	$\frac{6}{100}$	0.75	15%	$\frac{11}{50}$	$\frac{22}{100}$	$\frac{8}{10}$	$\frac{3}{50}$	0.05	$\frac{3}{20}$

(b) Reply to the message but **not** in code.

2 Of the people who entered the competition, 0.4 were girls, $\frac{9}{20}$ were boys and the rest were adults.

(a) Did more boys or girls enter?

(b) What percentage of entrants were adults?

3 The table shows the fraction of all the winners who chose each kit as a prize.

Kit chosen	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Spykit	0.04	0.07	0.11	0.19	0.28	0.36
Technokit	$\frac{7}{25}$	$\frac{6}{20}$	$\frac{1}{4}$	$\frac{11}{50}$	$\frac{2}{10}$	$\frac{4}{25}$
Mystery kit	68%					

(a) Copy and complete the table writing **every** fraction as a percentage.

(b) In which weeks did more winners choose Spykits than Technokits?

(c) In which week was the total number of Technokits and Spykits chosen greater than the Mystery kits?

4 There were 2000 winners altogether.

One half of the winners lived in England, 10% lived in Northern Ireland, one quarter of the **remaining** winners lived in Wales and the rest in Scotland.

(a) What **percentage** of the winners lived in Wales?

(b) **How many** winners lived in Scotland?

Problem solving

