

## Fractions, Decimals, Percentages

1) What percentage of the following shapes are shaded?

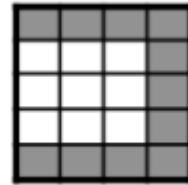
a)



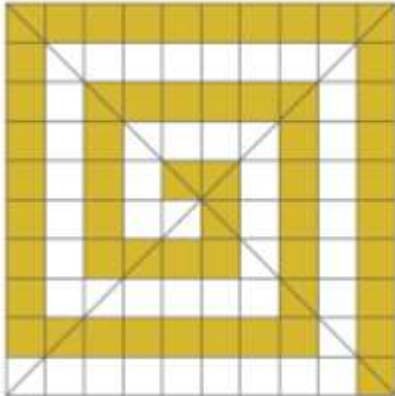
b)



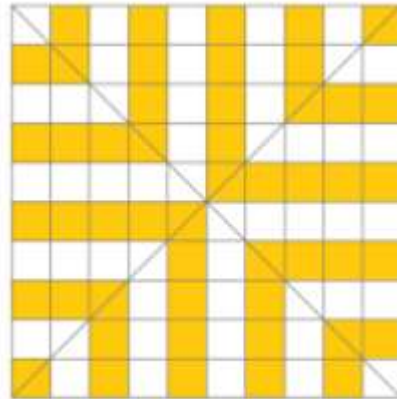
c)



d)

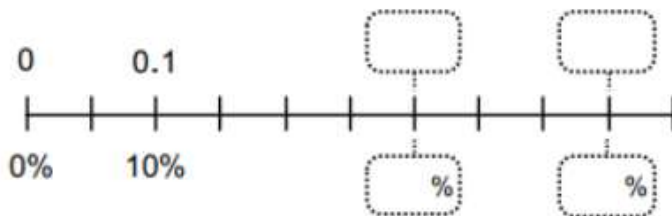


e)

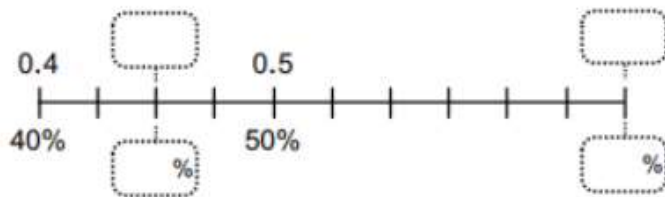


2) Fill in the gaps on the following number lines

a)



b)



3) Convert the following into the equivalent fraction/decimal /percentage:

a) 45%

b)  $\frac{7}{20}$

c) 0.32

d) 102%

e)  $\frac{9}{10}$

f) 0.22

g)  $\frac{3}{8}$

h) 13.2%

i) 0.002

j)  $\frac{3}{40}$

k) 0.5%

l) 1.04

4) Use the following code to crack the “hilarious” joke ahead

A	B	C	D	E	F	G	H	I
0.42	67%	0.08	$\frac{9}{50}$	$\frac{1}{20}$	0.003	7%	$\frac{18}{25}$	0.2%
J	K	L	M	N	O	P	Q	R
$\frac{8}{11}$	$\frac{9}{25}$	0.26	0.1	12%	$\frac{5}{8}$	0.2	0.09	82%
S	T	U	V	W	X	Y	Z	
$\frac{3}{10}$	4.2	1	99%	$\frac{17}{20}$	0.2	0.16	0.5	

0.72 0.625 85%      0.18 62.5%  $\frac{3}{60}$  30%       $4\frac{1}{5}$  72% 0.05       $\frac{1}{10}$   $\frac{15}{24}$  62.5%  $\frac{3}{25}$

$\frac{2}{25}$  100% 420%      0.002  $\frac{21}{5}$  0.3       $\frac{36}{50}$   $\frac{21}{50}$   $\frac{1}{500}$   $\frac{41}{50}$  ?

0.05 8%  $\frac{13}{50}$   $\frac{4}{2000}$  20%  $\frac{27}{90}$  5%       $\frac{14}{7000}$   $\frac{63}{15}$

### Hard Unrelated Puzzle

The eleven-digit number ‘A123456789B’ is divisible by exactly eight of the numbers 1, 2, 3, 4, 5, 6, 7, 8, 9. Find the values of A and B, explaining why they must have these values.

### Answers

1a) 90% b) 80% c) 55% d) 55% e) 50% 2a) 0.3, 0.45, 30%, 45% b) 0.45, 0.65, 45%, 65%

3a) 0.45  $\frac{9}{20}$  b) 0.35 35% c)  $\frac{8}{25}$  32% d) 1.02  $1\frac{1}{50}$  e) 0.9 90% f) 22%  $\frac{11}{50}$  g) 37.5% 0.375

h) 0.132  $\frac{33}{250}$  i) 0.2%  $\frac{1}{500}$  j) 0.075 7.5% k)  $\frac{1}{200}$  0.005 l) 104%  $\frac{26}{25}$