

1.4 Homework

GCSE (Year 10) Mathematics Percentages II

You may use a calculator

Question 1

Fill in the gaps in the following table;

Vulgar Fraction		$\frac{1}{3}$			$\frac{1}{10}$			$\frac{1}{50}$	
Decimal Fraction	0.5			0.2			0.04		
Percentage %			25			5			1

Question 2

Convert the following vulgar fractions into exact percentages;

(i) $\frac{3}{10}$ (ii) $\frac{7}{20}$ (iii) $\frac{12}{25}$

(iv) $\frac{130}{50}$ (v) $\frac{17}{1000}$ (vi) $\frac{8.6}{16}$

Question 3

Convert the following percentages into vulgar fractions;

Give your answers in as simple a form as possible.

(i) 60 % (ii) 32 % (iii) 85 %

(iv) 214 % (v) $\frac{1}{2}$ % (vi) 0.2 %

Question 4

- (i) What exact percentage of £52 is £13 ?

- (ii) What exact percentage of \$120 is \$40 ?

- (iii) What exact percentage of 15kg is 2.5kg ?

- (iv) What exact percentage of £80 is 10p ?

- (v) What exact percentage of a foot is an inch ?
 (**12 inches = 1 foot**)

Question 5

What percentage of the letters in this sentence are vowels ?

Question 6

In a test with 40 questions, William gets 32 correct and Kate gets 14 wrong.
How many percent higher is William's score, than Kate's ?

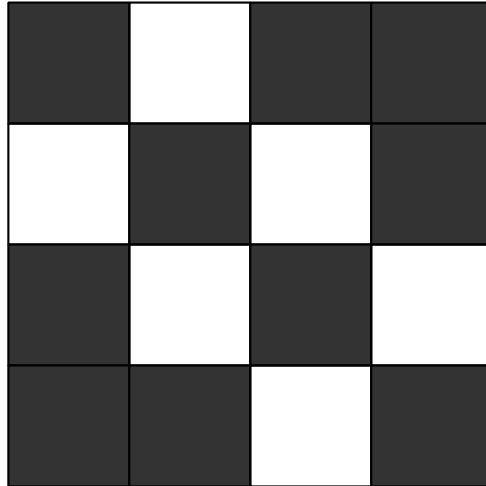
Question 7

On average I spell 95 % of words correctly.
How many spelling mistakes am I likely to make in a 2500 word essay ?

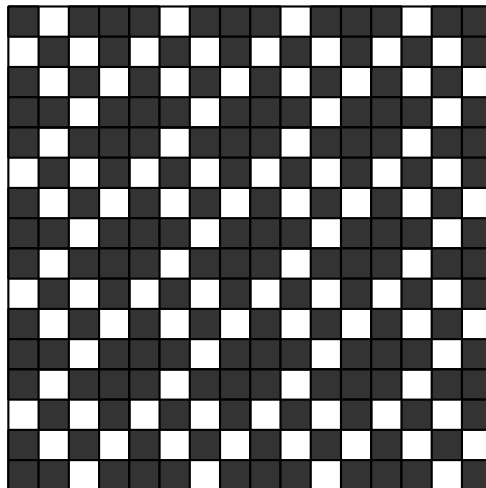
Question 8

What percentage of the large square is shaded ?

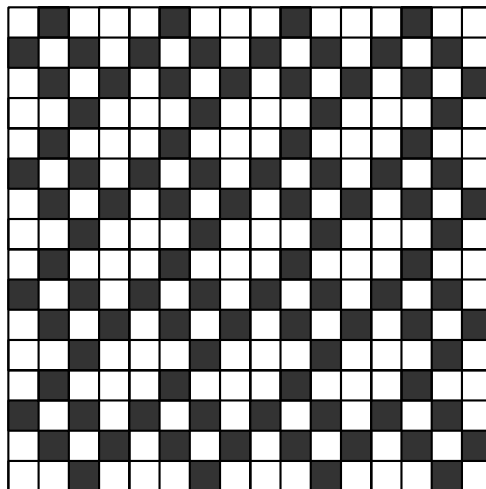
(i)



(ii)

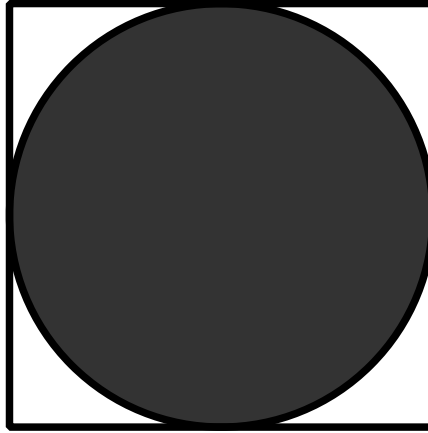


(iii)



Question 9

- (i) What percentage of a square's area will be contained within the inscribed circle, as shown below ?
Show your working, making your method clear



- (ii) What percentage of a circle's area will be contained within the inscribed square, as shown below ?
Show your working, making your method clear

