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		<u>1</u> 3			10			<u>1</u> 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) $\frac{8.6}{16}$

$$(\mathbf{v}) \frac{17}{1000}$$

$$(vi)$$
 $\frac{8.6}{16}$

Question 3

Convert the following percentages into vulgar fractions; Give your answers in as simple a form as possible.

$$(\mathbf{v})$$
 $\frac{1}{2}\%$

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

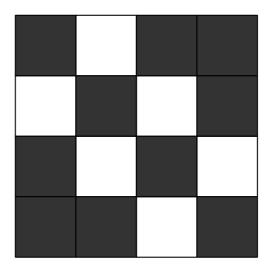
On average I spell 95 % of words correctly.

How many spelling mistakes am I likely to make in a 2500 word essay?

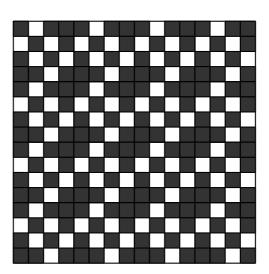
Question 8

What percentage of the large square is shaded?

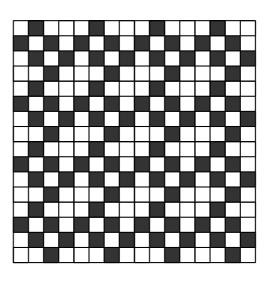
(i)



(ii)



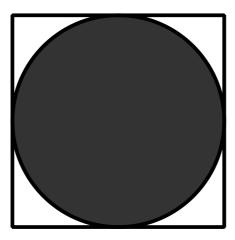
(**iii**)



Question 9

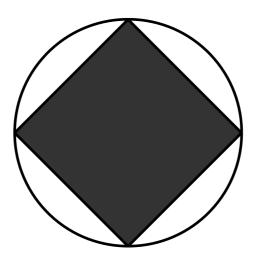
(i) What percentage of a square's area will be contained within the inscribed circle, as shown below?

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



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 $Teachers\ may\ obtain\ detailed\ worked\ solutions\ to\ the\ exercises\ by\ email\ from\ MHHShrewsbury@Gmail.com$