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Lite GCSE Maths		Name:		
Standard Form 1		Class:		
Author:				
Date:				
Time:	29			
Marks:	25			
Comments:				

## Q1. You are given that

 $c = 8.7 \times 10^8$  correct to two significant figures  $d = 1.3 \times 10^5$  correct to two significant figures.  $d = 1.3 \times 10^5$  correct to two significant figures.

Find the maximum value of  $\frac{c}{d}$ .

$$= 7 \times 10^3$$

Give your answer as an ordinary number.

	7000	
Answer		

(Total 3 marks)

## Q2. Terry has a bucket full of sand.

He wonders how many grains of sand it contains.

The empty bucket weighs 0.4 kg correct to one decimal place.

What is the minimum possible weight of the empty bucket?

(1)

The bucket, full of sand, weighs 7.5 kg correct to one decimal place. On average a grain of sand weighs  $7 \times 10^{-8}$  grams.

What is the maximum possible number of grains of sand in the bucket? Give your answer in standard form to an appropriate degree of accuracy.

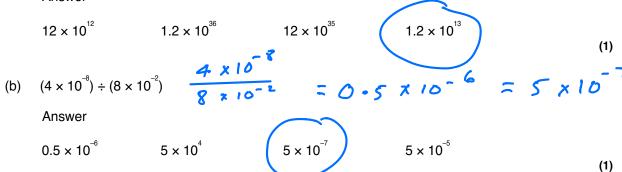
7200 = 1.02857×10

Answer 1.0 x 10"

(Total 4 marks)

- **Q3.** For each calculation circle the answer that is correct **and** is in standard form.
  - (a)  $(3 \times 10^5) \times (4 \times 10^7)$

Answer



- **Q4.** A company produces 35 million packets of crisps and snacks each week. Production is 7 days a week, 24 hours a day.
  - (a) On average, how many packets are produced in one day? Give your answer in standard form.

35000000 ÷7 = 5000000

(2)

(Total 2 marks)

(b) Each packet makes an average profit of 12p. 

Calculate the average hourly profit for this company.

5 x 10 x 0.12

Answer £ 25000

(Total 4 marks)

		x = 2.5 >	< 10 <sup>5</sup>	$y = 3.8 \times 10^4$	$z = 1.9 \times 10^6$		
	(a)	Calculate	<i>x</i> – <i>y</i>				
				Answer			(1)
	(b)	Calculate	$x^2$				
				Answer			(1)
	(c)	Calculate	$\frac{xy}{z}$				
				Answer			(1) (Total 3 marks)
							(Total 3 Illains)
Q6.	,	A builder has 72	200 kg of sa	and.			
	(a)	Write 7200 kg Give your ans		dard form.			
							(2)
	(b)			eighs 0.0006 g. grain of sand in standar	d form.		
				Answer		g	(1)

Q5.

x, y and z are standard form numbers.

	(c)	How many grains of sand are there in 7200 kg of sand? Give your answer in standard form.	
		Answer	(2)
			(Total 5 marks)
Q7.		Some large numbers are written below	
Q1.		Some large numbers are written below.	
		1 million = $10^6$	
		1 billion = 10 <sup>9</sup>	
		1 trillion = 10 <sup>12</sup>	
	(a)	How many millions are there in one trillion?	
		Answer	(1)
	(b)	Write 8 billion in standard form.	
		Answer	(4)
			(1)
	(c)	Work out 8 billion multiplied by 3 trillion. Give your answer in standard form.	
		Answer	
			(2) (Total 4 marks)