

ESTIMATING AND APPROXIMATING

Name: _____

Assessment Criteria: Make and justify estimates and approximations of calculations; estimate calculations by rounding numbers to one significant figure and multiplying and dividing mentally

No calculator allowed!

1. Find an approximate value of the following calculations:

a) $\frac{192.3 \times 87.1}{26.8 \times 20.7}$

b) $\frac{2.95 \times 5.1^3}{4.56}$

c) $5.92 \times 33 + (2.82 \times 4.8^2)$

2. Write down an example of a division calculation, involving decimals, that approximates to 60

3. Is the following statement always true, sometimes true or never true:

'Rounding up the numbers in a calculation will produce an over-estimate'

Give reasons for your answer

Overall, I think my success level is:

Low High
○ ○ ○ ○

Q	ESTIMATING AND APPROXIMATING	☺	☹
	I can round numbers to one significant figure		
	I can calculate mentally once values in a complex calculation have been rounded		
	I can identify efficient approaches, such as cancelling common factors, in order to make mental calculations easier		
	<i>I can justify generalisations, arguments or solutions</i>		
I need to practise ...			