FORMATIVE ASSESSMENT WORKBOOK

Unit Standard 7480

Activity 1 (SO1, AC 1, 2, 7)

This is an individual activity

Use appropriate algorithms to do the following calculations on your calculator:

1. Find the sum of:

52	68	
1345	65	
15.8	989	
1123.4	6598	
12.894	1345	
12.368	15.8	
0.0012	1123.4	
68	12.894	
65	12.368	
989	0.0012	
6598	15.8	

2. John is a bus driver and travelled the following distances during his first trip for the day:

Bus stop	**Arrive**	**Depart**	**Distance**
A	6:15	6:26	
B	6:38	6:44	
C	7:01	7:13	
D	7:36	7:47	
E	8:07	8:19	

3. How far did he travel from A to C?

4. How far did he travel from C to D?

5. What was the total distance covered in this trip?

6. How long did he spend at bus stop A?

7. How long did he spend at stops C and D?

8. Calculate the answers:

(3.56 x 2.34) +(2.3 – 1.2)

9. (11.2 – 5.6) – (2.4 + 4.3)

10. (989.21 – 3.4) x (5.3 – 2.3)

11. 10.99 + (7.8 x 2.2)

12. 414.3 – 298.99 +3.56

13. 42.2 x (5.3 – 4.3)

14. 33.1 x (4.5 + 3.9)

15. 0.003 + 2.13 x (4.5 + 4.2)

16. Determine the error should you omit the brackets.

Activity 2: (SO1, AC3 – 6)

This is an individual activity

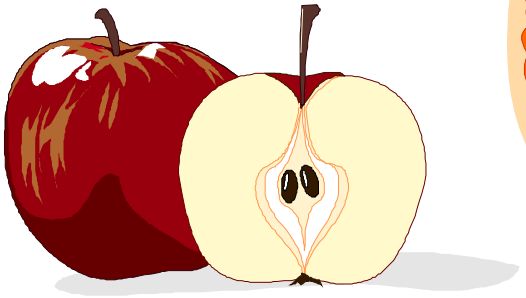
17. What is the value of the '6' in each of the following numbers?

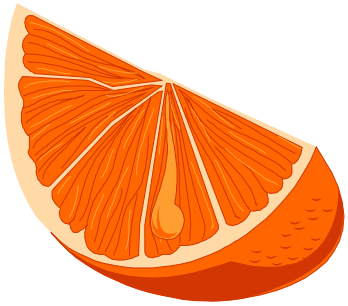
169	
2,016	
6,543	

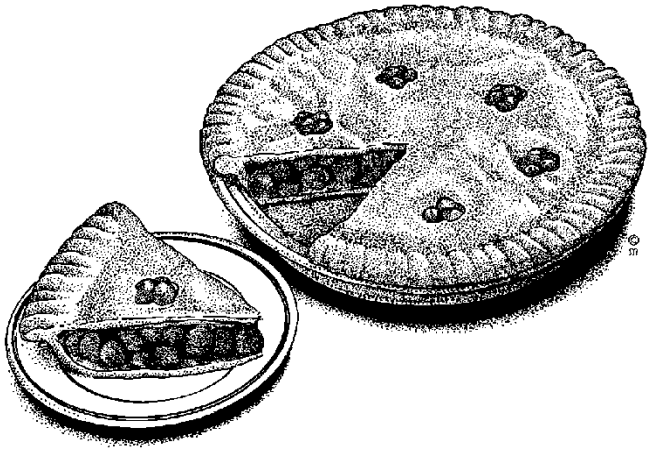
18. The pictures below show whole fruit or pies that have been divided into smaller parts. The orange slice looks like one sixteenth of an orange. Use the picture of the orange that has been cut in half to work out if you agree with me.

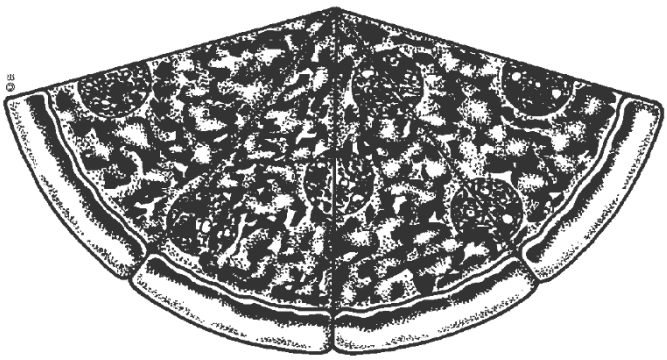
19. See if you can divide the fruit and pies into the following:

- Four quarters
- Eight eighths
- Six sixths
- Twelve twelfths









20. Round the values in the table to the term specified. Remember to take the term that you are going to round to find the digit that corresponds to its position then change that digit according to the digit on its right. Do not start rounding from the right then stop when you reach that position. This will give you the wrong answer! Look again at 198.7630467 and notice that the rounding always used the original number. If the rounding had been 'rolled-up', so to speak, the value for ten-thousandth would have been 198.7631 and this value is wrong!

Value	Round to (Term)	Result
1.34	Units	
1.34	Tenths	
34,501	Tens	
34,501	Hundreds	
34,501	Thousands	
34,501	Ten-thousands	
34,501	hundred-thousands	
74,436	Tens	
74,436	Hundreds	
74,436	Thousands	
74,436	Ten-thousands	
74,436	hundred-thousands	
198.7630467	Millionth	
198.7630467	hundred-thousandth	
198.7630467	Ten-thousandth	
198.7630467	Thousandth	
198.7630467	Hundredth	
198.7630467	Tenth	
198.7630467	Units	
198.7630467	Tens	
198.7630467	Hundreds	
198.7630467	Thousands	

21. Write 8.4751 correct to

3 decimal places	
2 decimal places	
1 decimal place.	

22. Round the following values as indicated

Value	**Round to**	**Minimum**	**Maximum**
250ml	1ml		
180ml	10ml		
500ml	20ml		

23. What is the difference between rational and irrational numbers? Give an example of each.

Rational numbers are all numbers that can be represented as a ratio ($\frac{a}{b}$) of two numbers
Irrational numbers are those that cannot be represented as a ratio of two whole numbers

Activity 3: (SO2, AC, 1-5)

1. Round off all the numbers to 3 decimal numbers

1.256784 =	
4.3812629 =	
1.001111 =	
22.22222 =	
8.989993 =	

2. Convert the following repeating decimals to common fractions:

a	1.45454545	
b	1,33333	
c	52.535535535	

d	909.9090909090	

3. Convert the following fractions to decimal form (9)

1/2	
1/3	
1/4	
1/5	
1/6	
1/7	
1/8	
1/9	
1/10	

4. If we say that the rule used to determine the number of significant figures the answer of a calculation should have for multiplication and subtraction is that the number with the least significant figures determines the answer, what is the correct answer for the following: (1)

12,345 x 6, 7 =

5. If we say that the rule used to determine the number of significant figures the answer of a calculation should have for multiplication and subtraction is to retain the smallest number of decimal places, what is the correct answer for the following: (1)

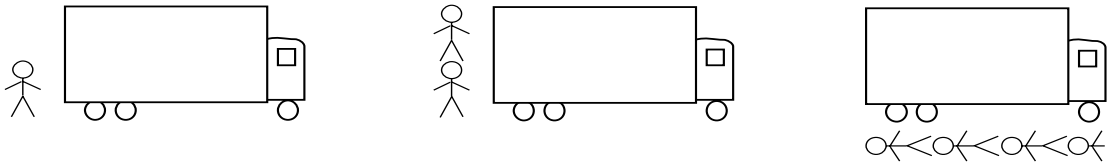
10,345 + 9, 9 =

6. Write the following in scientific notation:

a	0.0009 m	
b	12cm	
c	1000 mm	
e	0.03 m	
f	1.2 m	
g	120 m	

7. When is the use of scientific notation useful? Give an example.

8. A woman is standing near a lorry. Estimate the length and height of the lorry. Assume that the woman is 1.6m tall.



9. A bottle of wine costs 38.95. You want to buy 6 bottles as gifts. Approximately how much will 6 bottles cost? You must estimate your answer and explain your steps. (2)
