

Year 7 Mathematics 2016

Common Test 1: Whole Number

Total marks: 65

Name _____

Tutor Class _____

Show your working for any question worth more than one mark.

1. Put the following numbers in **descending** order. *Note: No working is required*

77717, 8987, 637114, 123000, 97312

Answer _____ [2]

2. Using only the digits shown below, create the following numbers:

9 4 5 1 7

- | | | |
|----------------------------------|-------|-----|
| (a) A two digit composite number | _____ | [1] |
| (b) A one digit prime number | _____ | [1] |
| (c) A factor of 24 | _____ | [1] |
| (d) A two-digit prime number | _____ | [1] |
| (e) A square number | _____ | [1] |
| (f) The smallest 5-digit number | _____ | [1] |

3. Answer the questions below about the number

59603

- | | | |
|---------------------------------------|-------|-----|
| (a) Round to the nearest thousand | _____ | [1] |
| (b) Write the number in words | _____ | [1] |
| (c) What is the place value of the 9? | _____ | [1] |
| (d) What is the value of the 6? | _____ | [1] |
| (e) Write the number in expanded form | _____ | [1] |

4. Write in compact form (as a simple numeral)

(a) $3 \times 100\,000 + 2 \times 1000 + 7 \times 10 + 6 \times 1$ _____ [1]

(b) $3 \times 100 + 6 \times 1000 + 2 \times 10\,000 + 7 \times 10$ _____ [1]

5. Write in expanded form

(a) 80 207 _____ [1]

(b) 9046 _____ [1]

6. Round the following amounts of money

(a) \$623.50 to the nearest dollar _____ [1]

(b) \$13.89 to the nearest ten cents _____ [1]

7. Use leading figure approximation to **estimate** the answers to the following, **show your working**.

(a) $173 \div 2 + 1298$

Answer _____ [2]

(b) $76 + 2846 + 1976$

Answer _____ [2]

8. (a) Write down the first **five** multiples of 5 **and** 8:

Multiples of 5 _____ [2]

Multiples of 8 _____ [2]

(b) What is the lowest common multiple of 5 and 8?

_____ [1]

9. Perform the following calculations **by hand showing full working**

a) $217 + 38$

b) Find the difference between 9000 and 2346

Answer: _____ [2]

Answer: _____ [2]

c) 32×5

d) $1026 \div 3$

Answer: _____ [2]

Answer: _____ [2]

e) Find the product of 14 and 76

f) Find the sum of 685 and 45 and 186

Answer: _____ [3]

Answer: _____ [2]

10. (a) List the factor pairs for 24

Answer _____ [1]

(b) List the factors in ascending order of 60

Answer _____ [2]

11. Write 120 as a product of its prime factors, **show your working**.

Answer _____ [2]

12. Write down all the numbers which end in a 3, are prime and are less than 50

Answer _____ [2]

13. Circle the correct answer, True or False.

- | | | | |
|--|---|---|-----|
| (a) Adding a zero always results in zero | T | F | [1] |
| (b) Even numbers are divisible by two | T | F | [1] |
| (c) Composite numbers have exactly two factors | T | F | [1] |
| (d) Adding two even numbers always results in an even number | T | F | [1] |
| (e) The product of four and five is twenty | T | F | [1] |
| (f) 1786 is divisible by 5 | T | F | [1] |
-

14. Is 3245 divisible by 3? Explain your answer.

_____ [2]

15. Evaluate the following: **Show your working**.

(a) $3 + 5 \times 8$ _____ [1]

(b) $5 \times 6 + 9 \div 3$ _____ [1]

(c) $2 \times 10 \div 5$ _____ [1]

16. Use your knowledge of the distributive property to answer the following:

(a) Which is equal to $8 \times (2 + 7)$. Please circle the correct answer.

A $8 \times 2 + 7$

B $8 \times 2 + 8 \times 7$

C $2 + 8 \times 7$

[1]

(b) True or false?

$$6 \times (4 + 3) = 6 \times 4 + 6 \times 3$$

_____ [1]

(c) Fill in the missing number.

[1]

$$5 \times 9 + 5 \times 8 = 5 \times (\text{___} + 8)$$

(d) Fill in the missing number.

[1]

$$4 \times 3 + 4 \times 2 = 4 \times (\text{_____})$$

17. Arrange the digits 1, 2, 3, 4 and 5 in the squares to get a product of 4928.

$$\begin{array}{r} \square \square \square \\ \times \square \square \\ \hline \end{array}$$

[2]

18. I'm thinking of two numbers. Multiply my two numbers and you get 36. Divide the larger number by the smaller number and you get 4. What are my two numbers?

_____ [2]

19. What is the mystery number? (There is more than one solution, you need only give one)

It's greater than 2.

It's less than 10.

When you divide 83, 179 and 275 by the mystery number, you get the same remainder.

_____ [2]