Name: Key
Class: _____

Show What You Know Assessment

1. Write each number in **standard form**. (6 marks)

a) 3 billion 400 thousand 7 hundred

3 000 400 700

b) 20 000 000 + 3 000 000 + 60 000 + 4000 + 900 + 7

23 064 907

c) Twenty-seven trillion fifty-seven million three hundred twenty-four thousand eighty-three

27 000 057 324 083

2. Write each number in **expanded form**. (4 marks)

a) 86 209 402

80 000 000 + 6 000 000 + 200 000 + 9 000 + 400 + 2

b) 23 845 265 001

20 000 000 000 + 3 000 000 000 + 800 000 000 + 40 000 000 + 5 000 000 + 200 000 + 60 000 + 5000 + 1

3. Mrs. Wisely has $635 000 in the bank. How much more money does she need before she can call herself a millionaire? Which **operation** will you use to solve this problem? (3 marks)

Subtraction

$$\begin{array}{r} 1\,000\,000 \\ -\ 635\,000 \\ \hline \$365\,000 \end{array}$$

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4. Top Tickets sells tickets for the Olympic Figure Skating Gala Exhibition, where all the medal-winning skaters perform. Use the table below. (5 marks)

Tickets Sold by Top Tickets		
Seating Level	**Price**	**Number Sold**
A	$525	126
B	$325	348
C	$175	1235

a) How much money did Top Tickets take in?

525 × 126 = 66 150
325 × 348 = 113 100
175 × 1235 = 216 125
$395 375

b) Suppose Top Tickets wants to take in $700 000. How much more money do they need to take in?

700 000
- 395 375
304 625

c) Suppose Top Tickets sold $284 725 worth of Level C tickets. How many Level C tickets did they sell?

284 725 ÷ 175 = 1627

5. Which numbers below are **multiples** of 7? (4 marks)

~~24~~ 35 42 ~~27~~ 63 ~~96~~ 84

6. Find a **common multiple** of 4, 5, and 6. Show your work. (4 marks)

4 8 12 16 20 24 28 32 36 40 44 48 52 56 60
5 10 15 20 25 30 35 40 45 50 55 60
6 12 18 24 30 36 42 48 54 60

60, 120, 180

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7. Tell if each number is **Prime or Composite** and how you know. (4 marks)

a) 18 Composite b) 21 Composite c) 48 Composite d) 37 prime

8. Only one **Prime** number is even. What is it? How do you know? (2 marks)

2 only 2 factors

9. **List all** of the **factors** for each of the numbers below. Sort the factors into **Prime and Composite** numbers. (24 marks)

a) 28 1 28, 2 14, 4 7

b) 63 1 63, 3 21, 7 9

Prime	Composite
2, 7	4, 14, 28
3, 7	9, 21, 63

10. Find the **common factors** for each pair of numbers. What is the **greatest common factor** and the **least common factor** for each set? (12 marks)

a) 16, 32 1 16, 2 8, 4 4 / 1 32, 2 16, 4 8 (1), 2, 4, 8, (16)

b) 18, 27 1 18, 2 9, 3 6 / 1 27, 3 9 (1) 3, (9)

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11. Evaluate each expression. **Orders of Operation**. (3 marks)

a) $35 - 16 \div 4$

$35 - 4 = 31$

b) $8 \times (6 + 4)$

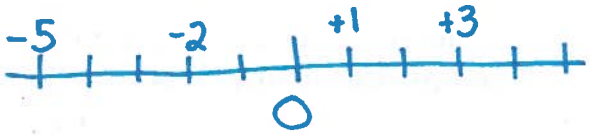
$8 \times 10 = 80$

c) $86 - 9 \times 9$

$86 - 81 = 5$

12. Draw a number line. Mark each **integer** on the line. (5 marks)

+3, -5, +1, -2, 0



13. Order these sets of **integers** from **least to greatest**. (6 marks)

a) +4, -3, -2, +1, -4

$-4 \quad -3 \quad -2 \quad +1 \quad +4$

b) +8, +5, 0, -5, -17

$-17 \quad -5 \quad 0 \quad +5 \quad +8$

c) +10, -9, +8, -7, +6

$-9 \quad -7 \quad +6 \quad +8 \quad +10$