NEW DISCOVERING MATHEMATICS
SECONDARY 1 (GRADE 7)
NON-CALCULATOR PRACTICE

Name: _____ ( ) Class: _____ Date: _____

Chapter 1 – Factors and Multiples (Worksheet A)

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1 Determine whether each of the following numbers is a prime or composite number.

(a) 31

(b) 47

(c) 51

(d) 67

2 Express the following numbers as a product of their prime factors in index notation.

(a) 85

(b) 144

(c) 240

3 Find the highest common factor of the following sets of numbers.
Express your answers in index notation.

(a) 32 and 88

(b) 45 and 120

(c) 24, 36 and 40

4 Find the lowest common multiple of the following sets of numbers.
Express your answers in index notation.

(a) 12 and 18

(b) 25 and 40

(c) 15, 25 and 30

5 Using prime factorisation, find the value of

(a) $\sqrt{576}$

(b) $\sqrt[3]{216}$

6 **(a)** Express 396 as a product of its prime factors.

(b) Given that $396k$ is a perfect square, find the smallest integer value of k.

7 **(a)** Express 540 as a product of its prime factors.

(b) Given that $\frac{540}{k}$ is a perfect square, find the smallest integer value of k.

8 A wire is bent to form a square of area 900 cm^2.
Calculate the total length of wire needed.

9 Explain why 1764 is a perfect square.

10 Amir is preparing goody bags to be shared among some children.
He has 120 stationaries, 84 sweets and 280 stickers.
He packs the items such that each goody bag has the same number of items.

(a) Find the largest number of goody bags that Amir can prepare.

(b) Hence find the number of stickers in each goody bag.