

Learning Objective:	Highest common factors	Name:	
		Date:	

Do NOW Activity:

- 1 What is total of $500 + 50 + 0.2 + 0.01$?
- 2 **Work out** 66×44
- 3 **Simplify** $3a + 2b + 2a - b$
- 4 If $x = 3$ work out the value of $10 - x$
- 5 **Round** 783.4 correct to 1 significant figure

PRIOR KNOWLEDGE CHECK:

1. I can find the highest common factor of two numbers

THE MAIN EVENT

WORKED EXAMPLE #1:

Factors – Numbers that can be divided equally into another number.

Factors of 20 = 1, 20, 2, 10, 4, 5

The highest common factor of 20 and 40 = 20

PRACTICE #1:

- Question 1: (a) List all the factors of 10
 (b) List all the factors of 15
 (c) Write down all the common factors of 10 and 15.

- Question 2: (a) List all the factors of 12
 (b) List all the factors of 18
 (c) Write down all the common factors of 12 and 18.

Question 3: Write down all the common factors of each of these pairs of numbers.

- (a) 6 and 8 (b) 15 and 20 (c) 9 and 15 (d) 7 and 14
 (e) 30 and 40 (f) 21 and 27 (g) 18 and 30 (h) 16 and 24

- Question 4: (a) List all the factors of 14
 (b) List all the factors of 21
 (c) Find the highest common factor (HCF) of 14 and 21.

- Question 5: (a) List all the factors of 24
(b) List all the factors of 36
(c) Find the highest common factor (HCF) of 24 and 36.

Question 6: Find the highest common factor (HCF) of each of these pairs of numbers.

- (a) 4 and 14 (b) 6 and 9 (c) 9 and 21 (d) 8 and 12
(e) 6 and 15 (f) 10 and 17 (g) 30 and 45 (h) 40 and 60
(i) 28 and 63 (j) 24 and 36 (k) 16 and 28 (l) 18 and 45
(m) 150 and 200 (n) 12 and 54 (o) 90 and 270 (p) 39 and 65

Question 7: Find the highest common factor (HCF) of each of these sets of numbers.

- (a) 12, 6 and 15 (b) 27, 33 and 12 (c) 30, 15 and 25 (d) 8, 20 and 12
(e) 10, 25 and 13 (f) 12, 24 and 30 (g) 9, 36 and 45 (h) 100, 125 and 200

Exam Type Questions:

2. A red light flashes every 6 seconds.
A yellow light flashes every 4 seconds.
They both flash at the same time.

After how many seconds will they next both flash at the same time?

.....seconds
(2)