Multiples, Factors, Lowest Common Multiple & Highest Common Factor
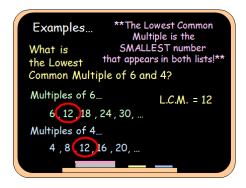
Outcome 1 – Multiples
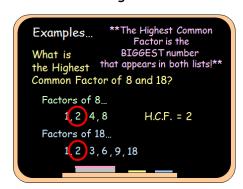
Examples…

Multiples are basically times tables!

Write down the first 5 multiples of 6…

6, 12 , 18 , 24, 30.

Write down the first 6 multiples of 4…

4, 8, 12 , 16 , 20, 24.

Questions…

Write down the…

1. …first 3 multiples of 3.
2. …first 5 multiples of 8.
3. …first 3 multiples of 9.
4. …first 6 multiples of 7.
5. …first 4 multiples of 5.
6. …first 6 multiples of 2.
7. …first 4 multiples of 11.
8. …first 7 multiples of 10.
9. …first 5 multiples of 12.
10. …first 7 multiples of 6.

Outcome 2 – Factors

Examples…

A factor is a number that divides into another number with no remainder!

Write down the factors of 6…

1, 2, 3, 6.

Write down the factors of 18…

1, 2, 3, 6 , 9, 18.

Questions…

Write down the factors of…

1	8	2	12
3	13	4	14
5	17	6	21
7	2	8	15
9	23	10	20

Outcome 3 – Lowest Common Multiple

Examples…

The Lowest Common Multiple is the SMALLEST number that appears in both lists!

What is the Lowest Common Multiple of 6 and 4?

Multiples of 6…

6 , 12 , 18 , 24 , 30, …

Multiples of 4…

4 , 8 , 12 , 16 , 20, …

L.C.M. = 12

Questions…

Write down the Lowest Common Multiple (L.C.M.) of…

1	5 and 4	2	12 and 8
3	10 and 6	4	9 and 3
5	12 and 5	6	8 and 3
7	7 and 4	8	8 and 2
9	5 and 2	10	11 and 8

Outcome 4 – Highest Common Factor

Examples…

The Highest Common Factor is the BIGGEST number that appears in both lists!

What is the Highest Common Factor of 8 and 18?

Factors of 8…

1, 2 , 4 , 8

Factors of 18…

1, 2 , 3, 6 , 9, 18

H.C.F. = 2

Questions…

Write down the Highest Common Factor (H.C.F.) of…

1	6 and 18	2	14 and 18
3	4 and 8	4	15 and 20
5	10 and 14	6	18 and 15
7	12 and 18	8	16 and 20
9	8 and 16	10	16 and 24

Outcome 1 Answers

1. $3, 6, 9$ 2. $8, 16, 24, 32, 40$
3. $9, 18, 27$ 4. $7, 14, 21, 28, 35, 42$
5. $5, 10, 15, 20$ 6. $2, 4, 6, 8, 10, 12$
7. $11, 22, 33, 44$ 8. $10, 20, 30, 40, 50, 60, 70$
9. $12, 24, 36, 48, 60$ 10. $6, 12, 18, 24, 30, 36, 42$

Outcome 2 Answers

1.	$1, 2, 4, 8$	2.	$1, 2, 3, 4, 6, 12$
3.	$1, 13$	4.	$1, 2, 7, 14$
5.	$1, 17$	6.	$1, 3, 7, 21$
7.	$1, 2$	8.	$1, 3, 5, 15$
9.	$1, 23$	10.	$1, 2, 4, 5, 10, 20$

Outcome 3 Answers

1.	20	2.	24
3.	30	4.	9
5.	60	6.	24
7.	28	8.	8
9.	10	10.	88

Outcome 4 Answers

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

Multiples, Factors & Primes   © Cdmasterworks Ltd 2012