5126a

Highest Common Factor (H.C.F.)

A). The H.C.F. of two or more numbers is the biggest factor that belongs to all the numbers.
One way to find this is to look at the prime factors.

E.g. Find the H.C.F. of 12 and 18.

Prime factors of 12 **2** × 2 × **3** These factors belong in both sets.

Prime factors of 18 **2** × 3 × **3**

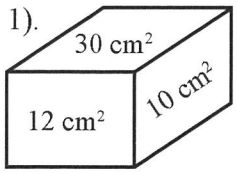
The H.C.F is 2 × 3 = 6.

Find the H.C.F. of the following sets of numbers.

1).	12 and 18	2).	10 and 25	3).	14 and 21	4).	24 and 32
5).	30 and 24	6).	30 and 45	7).	48 and 36	8).	45 and 36
9).	48 and 72	10).	42 and 70	11).	105 and 63	12).	72 and 120
13).	18, 30 and 42	14).	24, 40 and 72	15).	27, 18 and 99	16).	104, 72 and 56
17).	36, 96 and 60	18).	42, 56 and 98	19).	90, 45 and 105	20).	36, 63 and 108
21).	63, 42 and 126	22).	108, 54 and 90	23).	72, 168 and 120	24).	144, 96 and 192

B). Here are some cuboids. The areas of each face are given. (The diagrams are not drawn to scale).
Work out the length, width and height of each cuboid.

1).



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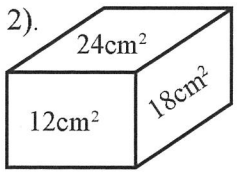

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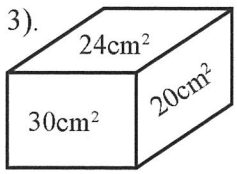

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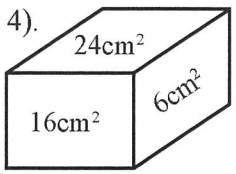

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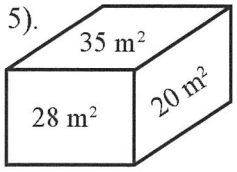

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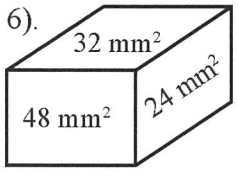

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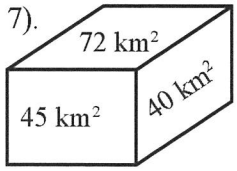
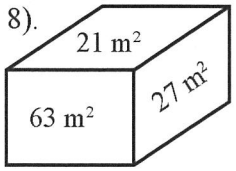


8).



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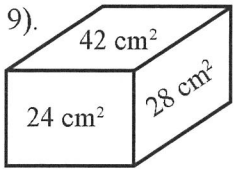

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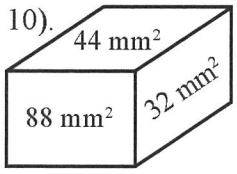

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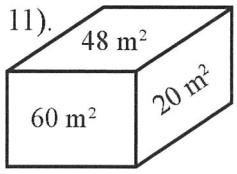

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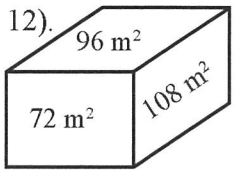

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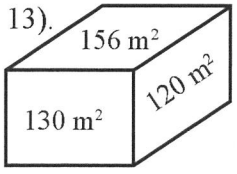
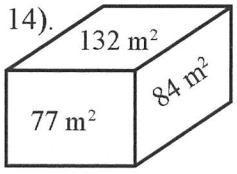


14).



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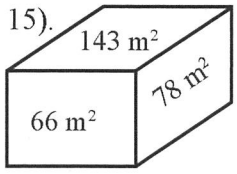

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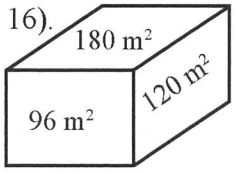

5126b

Lowest Common Multiple (L.C.M.)

The smallest multiple of two or more numbers is called the Lowest Common Multiple (L.C.M.).

E.g. Find the L.C.M. of 4 and 9. Multiples of 4 4, 8, 12, 16, 20, 24, 28, 32, **36**, 40 ....

Multiples of 9 9, 18, 27, **36**, 45.....

The L.C.M. of 4 and 9 is 36.

Find the Lowest Common multiple of the following sets of numbers.

1).	3 and 4	2).	5 and 7	3).	6 and 9	4).	4 and 7
5).	8 and 12	6).	10 and 15	7).	12 and 9	8).	10 and 12
9).	20 and 15	10).	12 and 18	11).	15 and 25	12).	16 and 24
13).	3, 4 and 5	14).	2, 3 and 5	15).	3, 4 and 8	16).	2, 4 and 9
17).	5, 8 and 10	18).	3, 9 and 12	19).	4, 12 and 16	20).	8, 12 and 20
21).	5, 12 and 24	22).	15, 20 and 24	23).	8, 15 and 20	24).	15, 18 and 30