

Prime Factors and Factor Trees

By drawing factor trees, write the following numbers as a product of their prime factors.

- | | |
|--------|---------|
| (a) 15 | (b) 22 |
| (c) 28 | (d) 24 |
| (e) 32 | (f) 42 |
| (g) 50 | (h) 54 |
| (i) 60 | (j) 75 |
| (k) 80 | (l) 100 |

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As a product of its primes, what number is given by:

- (a) $2 \times 5 \times 11$
- (b) $3 \times 3 \times 5$
- (c) $2 \times 5 \times 7$
- (d) $2 \times 2 \times 3 \times 3 \times 5$

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For each of these numbers, draw a factor tree and write as a product of its prime factors.

- | | |
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| (a) 4 | (b) 9 |
| (c) 16 | (d) 25 |
| (e) 36 | (f) 81 |

What do you notice?

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What do you notice?

As a product of its prime factors, $120 = 2 \times 2 \times 2 \times 3 \times 5$. How could you use this information to find all the factors of 120, making sure you do not miss any factor pairs?

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