

Friday: To know and understand prime numbers, prime factors and composite numbers.

Including challenge.

Factors are numbers that divide exactly into another number.

A prime number is a number that is only divisible by itself and one.

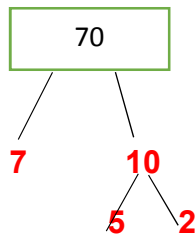
A composite number is a number which is not a prime number.

PRIME FACTORS

A factor which is also a prime number is also a prime factor.

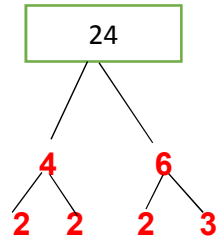
To find the prime factors of a number we can use a factor tree.

A factor tree for 70.



$$70 = 7 \times 2 \times 5$$

A factor tree for 24



$$24 = 2 \times 2 \times 2 \times 3$$

Use a factor tree to find all the prime factors of:

- | | |
|-------|--------|
| 1) 32 | 5) 48 |
| 2) 49 | 6) 42 |
| 3) 80 | 7) 75 |
| 4) 66 | 8) 100 |

CHALLENGE

Use a factor tree to find all the prime factors of:

- | | |
|-------|--------|
| 1) 45 | 5) 120 |
| 2) 68 | 6) 104 |
| 3) 72 | 7) 168 |
| 4) 99 | 8) 216 |

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Answers including Challenge.

Factors are numbers that divide exactly into another number.

A prime number is a number that is only divisible by itself and one.

A composite number is a number which is not a prime number.

Use a factor tree to find all the prime factors of:

- | | | | |
|-------|---|--------|---|
| 1) 32 | $2 \times 2 \times 2 \times 2 \times 2$ | 5) 48 | $2 \times 2 \times 2 \times 2 \times 3$ |
| 2) 49 | 7×7 | 6) 42 | $2 \times 3 \times 7$ |
| 3) 80 | $2 \times 2 \times 2 \times 2 \times 5$ | 7) 75 | $3 \times 5 \times 5$ |
| 4) 66 | $2 \times 3 \times 11$ | 8) 100 | $2 \times 2 \times 5 \times 5$ |

CHALLENGE

Use a factor tree to find all the prime factors of:

- | | | | |
|-------|---|--------|--|
| 1) 45 | $3 \times 3 \times 5$ | 5) 120 | $2 \times 2 \times 2 \times 3 \times 5$ |
| 2) 68 | $2 \times 2 \times 17$ | 6) 104 | $2 \times 2 \times 2 \times 13$ |
| 3) 72 | $2 \times 2 \times 2 \times 3 \times 3$ | 7) 168 | $2 \times 2 \times 2 \times 3 \times 7$ |
| 4) 99 | $3 \times 3 \times 11$ | 8) 216 | $2 \times 2 \times 2 \times 3 \times 3 \times 3$ |