

Directed numbers

Evaluate:

- a) $-9 + 8 =$
- b) $-7 - (-11) =$
- c) $(-4) \times (-6) =$
- d) $(15) \div (-5) =$
- e) $3 \times (-2) \times (-5) =$

Prime numbers

List the prime numbers greater than 70 and less than 90:

Express as a product of primes, using indices where appropriate:

- a) 18
- b) 2000
- c) 187
- d) 273

Order of operations

Evaluate:

- a) $2 \times 5 + 3 \times 4 =$
- b) $19 - 5^2 + 6 =$
- c) $(2^4 - 10) \div 2 =$
- d) $(1 - 4)^2 - (2 - 6)^2 =$
- e) $3^2 \times 7 + 10 \div 5 =$

Standard form

Write as an ordinary number:

- a) $4.1 \times 10^4 =$
- b) $8.6 \times 10^{-5} =$
- c) $2.003 \times 10^{-2} =$
- e) $0.0000012 =$
- f) $607.38 =$

Write in standard form:

- d) 57004 =
- e) 0.0000012 =
- f) 607.38 =
- Write in correct standard form:
- g) $103.2 \times 10^{-4} =$
- h) $0.088 \times 10^{-3} =$

Comparing numbers

Rewrite in ascending order:

- a) 19.1, 19.9, 11.9, 11.01, 19.09
- b) 0.3, 0.32, 0.003, 0.03, 0.303

Rewrite in descending order:

- c) -9.9, -9.2, -2.3, 3.2, -2.7
- d) 4010, 4110, 4001, 4011, 4101

Use =, <, or > to compare the numbers:

- e) 40.14 ____ 40.104
- f) 0.6102 ____ 0.67
- g) -0.112 ____ -0.12

Highest common factor

Find the highest common factor of:

- a) 12 and 28
- b) 54 and 81
- c) 36, 60 and 96

Lowest common multiple

Find the lowest common multiple of:

- a) 6 and 14
- b) 18 and 27
- c) 15, 20 and 35

Calculation

Use a handwritten method to calculate:

- a) $186 - 239 + 78 =$
- b) $56 \times 73 =$
- c) $17 \times 392 =$
- d) $14214 \div 23 =$

Calculations using standard form

Evaluate, writing your answer in standard form:

- a) $(2.5 \times 10^5) + (6.3 \times 10^4) =$
- b) $(4.27 \times 10^6) - (8.1 \times 10^5) =$
- c) $(1.07 \times 10^{-2}) - (9.8 \times 10^{-3}) =$
- d) $(7 \times 10^2) \times (8 \times 10^4) =$
- e) $(2.4 \times 10^3) \div (9.6 \times 10^7) =$