

## Whole Number

Find the l.c.m. of :- (a) 2, 3 and 4 (b) 3, 4 and 6 (c) 2, 5 and 6  
(d) 3, 5 and 10 (e) 2, 3 and 5 (f) 4, 6 and 8 (g) 3, 6 and 9

Find the h.c.f. of :-

(a) 13 and 17 (b) 23 and 29 (c) 11 and 19 (d) 7 and 3.

Use a similar method to find the prime decomposition of the following numbers :-

(a) 8 (b) 10 (c) 12 (d) 20  
(e) 25 (f) 36 (g) 45 (h) 50

## Integers 1

Calculate :-

(a)  $9 - 3$

(b)  $4 - 6$

(c)  $7 - 12$

(d)  $13 - 25$

(e)  $(-5) + 10$

(f)  $(-2) + 9$

(g)  $(-1) - 2$

(h)  $(-5) - 7$

(i)  $6 + (-1)$

(j)  $3 + (-1)$

(k)  $18 + (-12)$

(l)  $19 - (-1)$

(m)  $15 - (-25)$

(n)  $10 - (-43)$

(o)  $(-71) - 19$

(p)  $(-3) + (-2)$

(q)  $(-7) + (-12)$

(r)  $(-10) - (-10)$

(s)  $(-43) - (-12)$

(t)  $(-0.6) - (-0.4)$

Write down each of the following and find the answers :-

(a)  $3 \times (-4)$

(b)  $6 \times (-7)$

(c)  $(-5) \times 8$

(d)  $(-36) \div 9$

(e)  $(-56) \div 7$

(f)  $(-24) \div 12$

(g)  $(3 \times 8) \div 2$

(h)  $(8 \times 8) \div 4$

(i)  $10 \times (10 - 15)$

(j)  $9 \times (10 - 19)$

(k)  $((-4) - 11) \div 3$

(l)  $(-6) \times (-3)$

(m)  $(-33) \times (-1)$

(n)  $(-56) \div (-4)$

(o)  $2 \times (-3) \times (-4)$

(p)  $((-10) + (-2)) \div (-3)$

(q)  $(-2)^2$

(r)  $(-3)^3$

(s)  $(-1) \times (-2) \times (-3) \times (-2) \times (-1)$

## Integers 2

(a) Jason had £50 in his bank account. He then withdrew £80.

What will the balance be on his account now ?

(b) On Monday, Mary had a bank balance of -£145.

On Tuesday, she withdrew £35.

On Wednesday she paid £50 into her account.

How much must she deposit on Thursday to clear her overdraft ?

(c) Maximus Tritus was born in 42 B.C. and died 15 A.D. How old was he when he died ?

(d) The temperature last night was  $-5^{\circ}\text{C}$ . This morning it has risen by  $9^{\circ}\text{C}$ .

What is the temperature this morning ?



## Algebra

Simplify the following expressions :-

(a)  $x + x$

(b)  $a \times a$

(c)  $9p \times p$

(d)  $6p \times 7q$

(e)  $6e + 3 - 5e$

(f)  $x^2 + 7x^2$

(g)  $x^2 \times 7x^2$

(h)  $6 - 5m + 9m$

Simplify the following expressions then find their value when  $a = 4$  and  $b = 5$ .

(a)  $6a - 5b$

(b)  $7a + b - a$

(c)  $5b - 2a - 2b$

(d)  $a^2 + b^2$

(e)  $3b^2 - 10a - b^2$

(f)  $(b - a)^2$

Remove the brackets :-

(a)  $3(6 + 2x)$

(b)  $8(5 - 6n)$

(c)  $6v(4 + 8v)$

(d)  $m(m - n + 4p)$

Remove the brackets and simplify :-

(a)  $2(x + 1) + 4$

(b)  $6a + 4(a - 5)$

(c)  $12 + 5(p - 2)$

(d)  $3(c - 1) + 2(c + 4)$

## Decimals

Work out :-

(a)  $28.92 + 37.57$

(b)  $54.35 - 9.87$

(c)  $14 + 9.78 + 0.047$

(d)  $11.4 - 8.32 + 24.274$

(e)  $9 + 2.278 - 10.509$

(f)  $33.1 - 7.247 - 15.08$

Round :-

(a) 7.58 to 1 decimal place.

(b) 3.9816 to 2 decimal places.

(c) 54.2287 to 3 decimal places.

(d) 2.145 434 to 4 decimal places.

Calculate :-

(a)  $0.7 \times 0.6$

(b)  $0.9 \times 0.2$

(c)  $0.4 \times 0.4$

(d)  $(0.5)^2$

(e)  $0.07 \times 0.3$

(f)  $0.08 \times 0.9$

(g)  $0.06 \times 0.8$

(h)  $0.01 \times 0.1$