

Factorise Completely:

1) $x^3 - x$

6) $a^3 - b^3$

2) $a^4 - a^2$

7) $a^3 + b^3$

3) $x^3 + 2x^2 - 15x$

8) $2ap^3 - 2aq^3$

4) $a^4 - 1$

* 9) $2ap^4 - 2aq^4$

5) $2ap^2 - 2aq^2$

10) $a^5 - 64a^2$

11) $m^3 + 27$

13) $1000 - y^3$

12) $m^3 - 8$

14) $8a^3 - b^3$

SIMPLIFY:

15) $\frac{x^2 + x - 6}{x^3} \div \frac{x^2 - 4}{x}$

16) $\frac{3b - 3c}{bc} \times \frac{bc}{b^2 - bc}$

SWERS

1/ $x(x+1)(x-1)$	2/ $x(x+1)(x-1)$	3/ $x(x+5)(x-3)$	4/ $(a^2+1)(a+b)(1+a^2b)$
5/ $(b-d)(b+d)$	6/ $(a^2+ab+b^2)(a^2-ab+b^2)$	7/ $(a+b)(a^2-ab+b^2)$	8/ $2a(p-q)(p^2+q^2+pq-d)$
9/ $2a(p^2+q^2)(p+q)(p-q)$	10/ $a^2(a-b)(a^2+ab+b^2)$	11/ $(m+3)(m^2-3m+9)$	12/ $(m-1)(m^2+2m-4)$
13/ $(10-4)(10+10q+q^2)$	14/ $(2a-b)(4a^2+2ab+b^2)$	15/ $\frac{x^2+3}{x^3}$	16/ $\frac{(x+2)x}{x+3}$

LESSON 8 - HW

FACTORISE COMPLETELY:

(1) $a(c+4) + 5(c+4)$ (2) $3x + 3y + ax + ay$

(3) $a^2 - ac + ab - bc$ (4) $2pq - pr + 6q^2 - 3qr$

SIMPLIFY:

(5) $\frac{8a+8}{8}$ (6) $\frac{12x-6}{6}$ (7) $\frac{ax+ay}{2a}$

(8) $\frac{x^2+x}{3x}$ (9) $\frac{24p-p^2}{4p}$ (10) $\frac{x^2-x}{x-1}$

(11) $\frac{2m^2+mn}{2m+n}$ (12) $\frac{x^2-9}{x+3}$ (13) $\frac{x^2+5x+6}{(x+2)}$

SIMPLIFY

(14) $\frac{x-3}{4} - \frac{x+1}{5}$ (15) $\frac{3}{x-1} + \frac{1}{x+1}$

(16) $\frac{2x-1}{x+1} - \frac{x+2}{x}$ (17) $\frac{3}{x-4} - \frac{2}{x-1}$

ANSWERS

$\frac{a+as-x}{s+x}$ (17)

$\frac{(1+x)x}{2-x+x^2}$ (9)

$\frac{1-x}{2+x}$ (8)

$\frac{ax}{b^2-x}$ (14)

$\frac{e+x}{e-x}$ (2)

w (11)

x (10)

$\frac{1}{f-2v}$ (6)

$\frac{3}{1+x}$ (5)

$\frac{2}{1+x}$ (7)

$1-x$ (6)

$1+a$ (5)

$(b^2+d)(2-b)$ (7)

$(a+b)(c-d)$ (3)

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

$(s+v)(t+w)$ (1)