

Factorise completely: (Mixed)

(1) $y^2 - 64$

$$= (y - 8)(y + 8)$$

(2) $m^7 - m^5$

$$= m^5(m^2 - 1)$$

$$= m^5(m - 1)(m + 1)$$

(3) $p^2 - 5p - 14$

$$= (p - 7)(p + 2)$$

(4) $3b(x^2 - 1) + 12(x^2 - 1)$

$$= (x^2 - 1)(3b + 12)$$

$$= (x - 1)(x + 1)(3)(b + 4)$$

$$= 3(x - 1)(x + 1)(b + 4)$$

(5) $121m^6 - 9$

$$= (11m^3 + 3)(11m^3 - 3)$$

$$(6) \quad b^2 - 4b - b + 4$$

$$= b(b-4) - 1(b-4)$$

$$= (b-4)(b-1)$$

$$(7) \quad x - x^3p^2$$

$$= x(1 - x^2p^2)$$

$$= x(1 - xp)(1 + xp)$$

$$(8) \quad 2pq + 4pr - 5mq - 10mr$$

$$= 2p(q + 2r) - 5m(q + 2r)$$

$$= (q + 2r)(2p - 5m)$$

$$(9) \quad \frac{m^2}{4} - 9$$

$$= \left(\frac{m}{2} - 3\right)\left(\frac{m}{2} + 3\right)$$

$$(10) \quad a^2 + 12ab + 32b^2$$

$$= (a + 8b)(a + 4b)$$