



Exercise 7E

Q1

Answer :

(d) $7(a - 3b)(a + 3b)$

$$\begin{aligned}(7a^2 - 63b^2) &= 7(a^2 - 9b^2) \\ &= 7(a - 3b)(a + 3b)\end{aligned}$$

Q2

Answer :

(d) $2x(1 - 4x)(1 + 4x)$

$$\begin{aligned}(2x - 32x^3) \\ &= 2x(1 - 16x^2) \\ &= 2x(1 - 4x)(1 + 4x)\end{aligned}$$

Q3

Answer :

(c) $x(x - 12)(x + 12)$

$$\begin{aligned}x^3 - 144x \\ &= x(x^2 - 144) \\ &= x(x - 12)(x + 12)\end{aligned}$$

Q4

Answer :

(d) $2(1 - 5x)(1 + 5x)$

$$\begin{aligned}
 & 2 - 50x^2 \\
 &= 2(1 - 25x^2) \\
 &= 2(1 - 5x)(1 + 5x)
 \end{aligned}$$

Q5

Answer :

$$(a) (a + b)(a + c)$$

$$\begin{aligned}
 & a^2 + bc + ab + ac \\
 &= a^2 + ab + bc + ac \\
 &= a(a + b) + c(a + b) \\
 &= (a + c)(a + b)
 \end{aligned}$$

Q6

Answer :

$$(d) (pq - 1)(q + 1)$$

$$\begin{aligned}
 & pq^2 + q(p - 1) - 1 \\
 &= pq^2 + qp - q - 1
 \end{aligned}$$

$$\begin{aligned}
 &= pq(q+1) - 1(q+1) \\
 &= (pq-1)(q+1)
 \end{aligned}$$

Q7

Answer :

$$(b) (a-m)(b+n)$$

$$\begin{aligned}
 &ab - mn + an - bm \\
 &= ab + an - mn - bm \\
 &= a(b+n) - m(n+b) \\
 &= (a-m)(b+n)
 \end{aligned}$$

Q8

Answer :

$$(a) (a-1)(b-1)$$

$$\begin{aligned}
 &ab - a - b + 1 \\
 &= a(b-1) - 1(b-1) \\
 &= (a-1)(b-1)
 \end{aligned}$$

Q9

Answer :

$$(c) (x + y)(x - z)$$

$$\begin{aligned}x^2 - xz + xy - yz \\&= x(x - z) + y(x - z) \\&= (x + y)(x - z)\end{aligned}$$

***** END *****