Answers - Surds - 1

Exercise A

1.

    (i) $4\sqrt{3}$ (vi) $6\sqrt{6}$ (xi) $50\sqrt{6}$

    (ii) $3\sqrt{2}$ (vii) $21\sqrt{2}$

    (iii) $3\sqrt{3}$ (viii) $25\sqrt{2}$

    (iv) $3\sqrt{5}$ (ix) $12\sqrt{6}$

    (v) $2\sqrt{5}$ (x) $80\sqrt{2}$

2.

    (i) $4\sqrt{2}$

    (ii) $11\sqrt{3}$

    (iii) $22\sqrt{5}$

    (iv) $-14\sqrt{2}$

    (v) $30\sqrt{5}$

    (vi) $34\sqrt{3} - 13\sqrt{2}$

3.

    (i) $14 + 7\sqrt{2}$ (ix) $36 + 28\sqrt{3}$

    (ii) $23 + 9\sqrt{3}$ (x) $72 + 50\sqrt{2}$

    (iii) $8 + 4\sqrt{5}$ (xi) $39 + 27\sqrt{2}$

    (iv) $13 + 3\sqrt{5}$ (xii) $62 - 10\sqrt{5}$

    (v) $12 - 5\sqrt{2}$ (xiii) $34 - 23\sqrt{2}$

    (vi) $35 - 12\sqrt{3}$ (xiv) $-30 + \sqrt{3}$

    (vii) $22 - 8\sqrt{7}$ (xv) $43 - 14\sqrt{5}$

    (viii) $29 - 11\sqrt{5}$ (xvi) $30 - \sqrt{7}$

Exercise B

1.

(i) $6\sqrt{2}$ (vi) $21\sqrt{7}$ (xi) $36\sqrt{3}$

(ii) $6\sqrt{3}$ (vii) $30\sqrt{7}$

(iii) $5\sqrt{3}$ (viii) $8\sqrt{5}$

(iv) $5\sqrt{5}$ (ix) $50\sqrt{5}$

(v) $10\sqrt{3}$ (x) $9\sqrt{10}$

2.

(i) $6\sqrt{7}$

(ii) $16\sqrt{3} + 10\sqrt{2}$

(iii) $10 - 7\sqrt{5}$

(iv) $4 - 12\sqrt{3} - 5\sqrt{2}$

(v) $44\sqrt{3} + 48\sqrt{2}$

3.

(i) $13 + 7\sqrt{3}$ (ix) $26 + 18\sqrt{2}$

(ii) $26 + 10\sqrt{2}$ (x) $38 + 26\sqrt{2}$

(iii) $10 + 4\sqrt{7}$ (xi) $30 + 18\sqrt{2}$

(iv) $3 + 2\sqrt{5}$ (xii) $38 - 10\sqrt{3}$

(v) $27 - \sqrt{3}$ (xiii) $32 - 18\sqrt{3}$

(vi) $12 - 7\sqrt{2}$ (xiv) $-22 + 18\sqrt{5}$

(vii) $21 - 10\sqrt{5}$ (xv) $48 - 13\sqrt{7}$

(viii) $13 - 7\sqrt{7}$ (xvi) $-4 - 10\sqrt{5}$