SECTION 8-3a

EXERCISE A

Simplify.

1) $5\sqrt{63}$

2) $\sqrt[4]{16x^5y^4}$

3) $\sqrt{75x^3y^6}$

4) $(-2\sqrt{15})(4\sqrt{21})$

5) $\sqrt{2ab^2} \bullet \sqrt{6a^3b^2}$

6) $\dfrac{\sqrt[3]{625}}{\sqrt[3]{25}}$

7) $(3-\sqrt{5})(1+\sqrt{3})$

8) $(2+\sqrt{2})(2-\sqrt{2})$

9) $\sqrt{\dfrac{14}{81}}$

10) $\sqrt[4]{\dfrac{y^5}{16}}$

11) $(7+2\sqrt{3})^2$

12) $(5\sqrt[3]{2})(\sqrt[3]{32})$

EXERCISE B

Simplify.

13) $\sqrt{243}$

14) $\sqrt[3]{54}$

15) $\sqrt{50x^4}$

16) $\sqrt{18x^2y^3}$

17) $3\sqrt[3]{56y^6z^3}$

18) $(3\sqrt{12})(2\sqrt{21})$

19) $\dfrac{\sqrt{294}}{\sqrt{6}}$

20) $\sqrt[4]{\dfrac{1}{81}c^5d^4}$

21) $\sqrt{\frac{g^{12}}{121}}$

22) $(5+\sqrt{6})(5-\sqrt{2})$

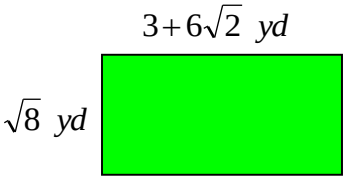
23) $(\sqrt{11}-\sqrt{2})^2$

24) $(10+\sqrt{7})(10-\sqrt{7})$

25) $(1-3\sqrt{3})(2-4\sqrt{3})$

EXERCISE C

26) Find the perimeter and area of the rectangle.



ANSWERS:

1) $15\sqrt{7}$

3) $5\,|xy^3|\sqrt{3x}$

5) $2a^2b^2\sqrt{3}$

7) $3+3\sqrt{3}-\sqrt{5}-\sqrt{15}$

9) $\frac{\sqrt{14}}{9}$

11) $61+28\sqrt{3}$

13) $9\sqrt{3}$

15) $5x^2\sqrt{2}$

17) $6y^2z\sqrt[3]{7}$

19) 7

21) $\frac{g^6}{11}$

23) $15-2\sqrt{22}$

25) $38-10\sqrt{3}$