MA90 Exercises for section 8.2   Properties of Radicals

Short Answer

    1. Simplify the radical expression as much as possible.

       $\sqrt{343}$

    .

    2. Simplify the radical expression as much as possible.

       $2\sqrt{80}$

    .

    3. Simplify the radical expression as much as possible. Assume the variable represents a positive number.

       $\sqrt{48x^2}$

    .

    4. Simplify the radical expression as much as possible. Assume all variables represent positive numbers.

       $\sqrt{192a^2b^2}$

    .

    5. Simplify the radical expression as much as possible.

       $\sqrt[3]{24}$

    .

6. Simplify the radical expression as much as possible. Assume the variable represents a positive number.

$$2b\sqrt[3]{8b^4}$$

.

7. Simplify the following radical expression as much as possible. Assume the variable represents a positive number.

$$\frac{3}{2}\sqrt{20a^3}$$

.

8. Simplify the radical expression as much as possible. Assume all variables represent positive numbers.

$$4\sqrt{48xy^2}$$

.

9. Simplify the radical expression as much as possible.

$$\sqrt{\frac{25}{36}}$$

.

10. Simplify the radical expression as much as possible.

$$\sqrt[3]{\frac{27}{8}}$$

.

11. Simplify the radical expression as much as possible. Assume all variables represent positive numbers.

$$\sqrt{\frac{256a^2b^2}{16}}$$

.

12. Simplify the radical expression as much as possible. Assume all variables represent positive numbers.

$$\sqrt[3]{\frac{125x^3}{8y^3}}$$

.

13. Simplify the radical expression as much as possible.

$$\sqrt{\frac{80}{9}}$$

.

14. Simplify the radical expression as much as possible.

$$\sqrt{\frac{108}{4}}$$

.

15. Simplify the radical expression as much as possible. Assume the variable represents a positive number.

$$\sqrt{\frac{28a^2}{9}}$$

.

16. Simplify the radical expression as much as possible. Assume all variables represent positive numbers.

$$\frac{4\sqrt{27a^2b^2}}{\sqrt{9}}$$

MA90 Exercises for section 8.2   Properties of Radicals
Answer Section

SHORT ANSWER

1. ANS:
    $7\sqrt{7}$

    PTS: 1
2. ANS:
    $8\sqrt{5}$

    PTS: 1
3. ANS:
    $4x \cdot \sqrt{3}$

    PTS: 1
4. ANS:
    $8a \cdot b \cdot \sqrt{3}$

    PTS: 1
5. ANS:
    $2\sqrt[3]{3}$

    PTS: 1
6. ANS:
    $4b^2 \cdot \sqrt[3]{b}$

    PTS: 1
7. ANS:
    $3a \cdot \sqrt{5a}$

    PTS: 1
8. ANS:
    $16y \cdot \sqrt{3x}$

    PTS: 1
9. ANS:
    $\dfrac{5}{6}$

    PTS: 1

10. ANS:

    $\dfrac{3}{2}$

    PTS: 1

11. ANS:

    $4a \cdot b$

    PTS: 1

12. ANS:

    $\dfrac{5x}{2y}$

    PTS: 1

13. ANS:

    $\dfrac{4\sqrt{5}}{3}$

    PTS: 1

14. ANS:

    $3\sqrt{3}$

    PTS: 1

15. ANS:

    $\dfrac{2a \cdot \sqrt{7}}{3}$

    PTS: 1

16. ANS:

    $4a \cdot b \cdot \sqrt{3}$

    PTS: 1