

Station 1 Cards
Converting Mixed Radicals to Entire Radicals

1 $3\sqrt{3}$	2 $-4\sqrt{6}$
3 $2\sqrt[3]{5}$	4 $3\sqrt[4]{5}$
5 $4x^2\sqrt{x^3}$	6 $-5q(\sqrt[3]{3q^4})$

Station 2 Cards
Simplifying Radicals

1

$$\sqrt{450}$$

2

$$\sqrt[3]{243}$$

3

$$\sqrt[4]{2048}$$

4

$$5\sqrt{60}$$

5

$$4\sqrt[3]{54b^{10}}$$

6

$$5\sqrt[4]{112c^{11}}$$

Station 3 Cards
Adding and Subtracting Radicals

1

$$2\sqrt{3} - 6\sqrt{6} + 3\sqrt{3} + 5\sqrt{6}$$

2

$$2\sqrt{3q} + 5\sqrt{6b} - 3\sqrt{3q} - 4\sqrt{6b}$$

3

$$-2\sqrt{40} + 3\sqrt{160} - 3\sqrt{32} - 4\sqrt{2}$$

4

$$\sqrt[3]{27} + 3\sqrt[3]{5} - 4\sqrt[3]{40} - \sqrt[3]{125}$$

Station 4 Cards
Multiplying Radicals

1

$$\sqrt{3}(4\sqrt{12})$$

2

$$(3\sqrt[3]{96})(-5\sqrt[3]{72})$$

3

$$(-4\sqrt{5x})(4\sqrt{8})$$

4

$$(2-\sqrt{7})(2+\sqrt{7})$$

5

$$-3\sqrt{8c}(4\sqrt{2c^5}-2\sqrt{6})$$

6

$$(4\sqrt{2}-3\sqrt{5})(6\sqrt{6}-4\sqrt{3})$$

Station 5 Cards
Dividing Radicals

1

$$\frac{\sqrt{20}}{\sqrt{2}}$$

2

$$\frac{30\sqrt{150}}{20\sqrt{50}}$$

3

$$\frac{\sqrt[3]{50}}{\sqrt[3]{2}}$$

4

$$\frac{\sqrt{25x^6}}{\sqrt{5x^2}}$$

5

$$\frac{-4\sqrt{5}}{3\sqrt{8}}$$

6

$$\frac{\sqrt{8}}{3\sqrt{2}-\sqrt{3}}$$

Station 1 Answers
Converting Mixed Radicals to Entire Radicals

- | | | | | | |
|----|-----------------|----|----------------|----|---------------------|
| 1. | $\sqrt{27}$ | 2. | $\sqrt{96}$ | 3. | $\sqrt[3]{40}$ |
| 4. | $\sqrt[4]{405}$ | 5. | $\sqrt{16x^7}$ | 6. | $\sqrt[3]{-375q^7}$ |

Station 2 Answers
Simplifying Radicals

- | | | | | | |
|----|---------------|----|---------------------|----|-----------------------|
| 1. | $15\sqrt{2}$ | 2. | $3\sqrt[3]{9}$ | 3. | $4\sqrt[4]{8}$ |
| 4. | $10\sqrt{15}$ | 5. | $12b^3\sqrt[3]{6b}$ | 6. | $20c^2\sqrt[4]{7c^3}$ |

Station 3 Answers
Adding and Subtracting Radicals

- | | | | | | |
|----|------------------------|----|--------------------------|----|---------------------------|
| 1. | $5\sqrt{3} - \sqrt{6}$ | 2. | $-\sqrt{3q} + \sqrt{6b}$ | 3. | $8\sqrt{10} - 16\sqrt{2}$ |
| 4. | $-2 - 5\sqrt[3]{5}$ | | | | |

Station 4 Answers
Multiplying Radicals

- | | | | | | |
|----|------------------------------------------------------|----|------------------------|----|-----------------|
| 1. | 24 | 2. | $-180\sqrt[3]{4}$ | 3. | $-32\sqrt{10x}$ |
| 4. | -3 | 5. | $-48c^3 + 24\sqrt{3c}$ | | |
| 6. | $48\sqrt{2} - 16\sqrt{6} - 18\sqrt{30} + 12\sqrt{5}$ | | | | |

Station 5 Answers
Dividing Radicals

- | | | | | | |
|----|---------------|----|------------------------|----|-----------------------------|
| 1. | $\sqrt{10}$ | 2. | $\frac{3\sqrt{3}}{2}$ | 3. | $\sqrt[3]{25}$ |
| 4. | $\sqrt{5x^2}$ | 5. | $\frac{-\sqrt{10}}{3}$ | 6. | $\frac{12 + 2\sqrt{6}}{15}$ |