Math worksheet on *'Radicals - Square - Simplifying from Factors, Values and Variables, Nothing Remaining (Level 2)'*. Part of a broader unit on *'Radicals - Simplifying Intro'*

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**1** Simplify the radical

$$\sqrt{5 \cdot 5 \cdot d \cdot d \cdot d \cdot d}$$

| a | b | c | d | e | f |
|---|---|---|---|---|---|
| $5d\sqrt{4}$ | $2d\sqrt{3}$ | $4d^3$ | $8d^4$ | $3d$ | $5d^2$ |

**2** Simplify the radical

$$\sqrt{2 \cdot 2 \cdot 2 \cdot 2 \cdot n \cdot n \cdot n \cdot n}$$

| a | b | c | d | e | f |
|---|---|---|---|---|---|
| $7n^2\sqrt{4}$ | $6n$ | $n^4\sqrt{2}$ | $4n^2$ | $2n^4$ | $5n^4\sqrt{3}$ |

**3** Simplify the radical

$$\sqrt{2 \cdot 2 \cdot 2 \cdot 2 \cdot x \cdot x \cdot x \cdot x}$$

| a | b | c | d | e | f |
|---|---|---|---|---|---|
| $x$ | $5x\sqrt{2}$ | $3x$ | $6x$ | $x^3$ | $4x^2$ |

**4** Simplify the radical

$$\sqrt{2 \cdot 2 \cdot 2 \cdot 2 \cdot n \cdot n}$$

| a | b | c | d | e | f |
|---|---|---|---|---|---|
| $4n$ | $n$ | $n^3\sqrt{4}$ | $7n^2\sqrt{4}$ | $n\sqrt{2}$ | $7n$ |

**5** Simplify the radical

$$\sqrt{5 \cdot 5 \cdot m \cdot m \cdot m \cdot m}$$

| a | b | c | d | e | f |
|---|---|---|---|---|---|
| $3m\sqrt{3}$ | $5m^2$ | $8m^3$ | $8m^2$ | $4m^3$ | $4m^2$ |

**6** Simplify the radical

$$\sqrt{2 \cdot 2 \cdot b \cdot b \cdot b \cdot b}$$

| a | b | c | d | e | f |
|---|---|---|---|---|---|
| $b$ | $3b^3\sqrt{3}$ | $5b$ | $2b^2$ | $b^3$ | $3b^2\sqrt{4}$ |

**7** Simplify the radical

$$\sqrt{3 \cdot 3 \cdot z \cdot z \cdot z \cdot z}$$

| a | b | c | d | e | f |
|---|---|---|---|---|---|
| $4z^2$ | $3z^2$ | $z$ | $2z$ | $2z^3$ | $5z^4$ |