C7.APK – SIMPLIFYING RADICALS

How to Complete a Circuit: Begin by completing the problem in cell #1. Search for your answer in the remaining cells. Put #2 in the problem blank: #_____. Work that question and proceed in this manner until you complete the circuit.

Simplify each radical expression.

Answer: $\dfrac{\sqrt{15}}{5}$ **# 1**　　Simplify: $\sqrt{32}$	**Answer:** $\dfrac{\sqrt{2}}{3}$ #_____　　Simplify; rationalize the denominator (if necessary) $\dfrac{\sqrt{6}}{\sqrt{75}}$
Answer: $\dfrac{\sqrt{14}}{2}$ #_____　　Simplify; rationalize the denominator (if necessary) $\dfrac{3\sqrt{3}}{7\sqrt{6}}$	**Answer:** $\dfrac{2\sqrt{3}}{5}$ #_____　　Simplify; rationalize the denominator (if necessary) $-\dfrac{14}{\sqrt{2}}$
Answer: $28\sqrt{5}$ #_____　　Multiply & Simplify: $3\sqrt{15} \times \sqrt{6}$	**Answer: $5\sqrt{5}$** #_____　　Simplify; rationalize the denominator (if necessary) $\dfrac{5}{\sqrt{3}}$
Answer: $30\sqrt{5}$ #_____　　Multiply & Simplify: $\sqrt{8} \times -4\sqrt{12}$	**Answer: $4\sqrt{2}$** #_____　　Simplify: $\sqrt{108}$
Answer: $\dfrac{\sqrt{2}}{5}$ #_____　　Simplify; rationalize the denominator (if necessary) $\dfrac{2\sqrt{10}}{4\sqrt{18}}$	**Answer:** $\dfrac{5\sqrt{3}}{3}$ #_____　　Simplify; rationalize the denominator (if necessary) $\dfrac{6\sqrt{2}}{\sqrt{5}}$

Answer: $-16\sqrt{6}$

#_____   Simplify; rationalize the denominator (if necessary)

$$\frac{\sqrt{6}}{\sqrt{27}}$$

Answer: $9\sqrt{10}$

#_____   Multiply & Simplify: $\sqrt{18} \times 5\sqrt{6}$

Answer: $6\sqrt{3}$

#_____   Simplify: $-4\sqrt{24}$

Answer: $30\sqrt{3}$

#_____   Multiply & Simplify: $-3\sqrt{2} \times -5\sqrt{10}$

Answer: $\dfrac{6\sqrt{10}}{5}$

#_____   Simplify; rationalize the denominator (if necessary)

$$\frac{\sqrt{49}}{\sqrt{14}}$$

Answer: $\dfrac{\sqrt{5}}{6}$

#_____   Simplify; rationalize the denominator (if necessary)

$$\frac{4\sqrt{15}}{5\sqrt{20}}$$

Answer: $\dfrac{3\sqrt{2}}{14}$

#_____   Simplify; rationalize the denominator (if necessary)

$$\frac{4}{\sqrt{5}}$$

Answer: $\dfrac{4\sqrt{5}}{5}$

#_____   Simplify; rationalize the denominator (if necessary)

$$\frac{3}{\sqrt{15}}$$

Answer: $-7\sqrt{2}$

#_____   Simplify; rationalize the denominator (if necessary)

$$\frac{25}{\sqrt{5}}$$

Answer: $-8\sqrt{6}$

#_____   Simplify: $4\sqrt{245}$