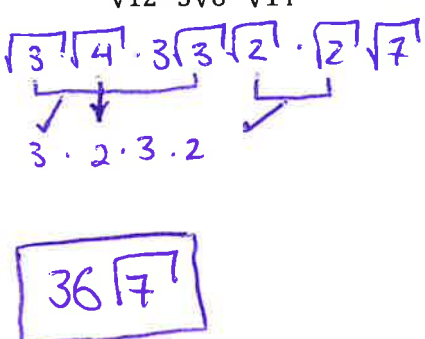
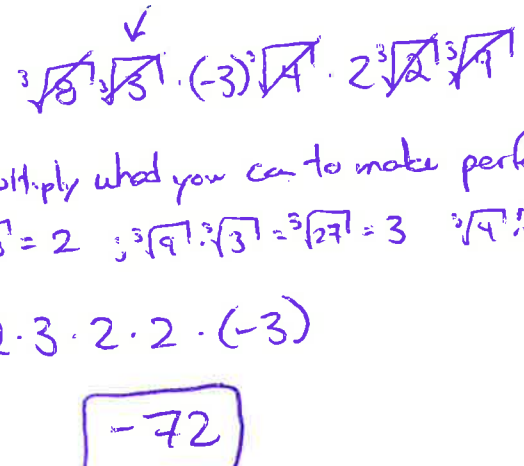


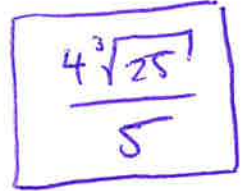
Name: **KEY**

**Section 2.4 – Proficiency Check**

Multiply the following Radicals:

Emerging	Proficient
$\sqrt{12} \cdot 3\sqrt{6} \cdot \sqrt{14}$ 	$\sqrt[3]{24} \cdot -3\sqrt[3]{4} \cdot 2\sqrt[3]{18}$  <p>Multiply what you can to make perfect cubes</p> <p><math>\sqrt[3]{8} = 2</math> ; <math>\sqrt[3]{9} \cdot \sqrt[3]{3} = \sqrt[3]{27} = 3</math> ; <math>\sqrt[3]{4} \cdot \sqrt[3]{2} = \sqrt[3]{8} = 2</math></p>

Rationalize the Denominator

Proficient	Proficient
<p>cube root need 3 identical factors</p> $\frac{4 \sqrt[3]{5} \sqrt[3]{5} \sqrt[3]{5}}{\sqrt[3]{5} \sqrt[3]{5} \sqrt[3]{5}}$ 	<p>use conjugate</p> $\frac{3}{(2-\sqrt{3})} \cdot \frac{(2+\sqrt{3})}{(2+\sqrt{3})}$ $\frac{3(2+\sqrt{3})}{(2-\sqrt{3})(2+\sqrt{3})} \rightarrow \frac{6+3\sqrt{3}}{4+2\sqrt{3}-2\sqrt{3}-3}$ $\frac{6+3\sqrt{3}}{1} = 6+3\sqrt{3}$ 