

Algebra 1 Bellwork Monday, May 18, 2015

Simplify each. Make sure your answer doesn't have any exponents that are zero or negative.

1. $\sqrt{32a^{14}b^{25}}$

2. $\sqrt[3]{108g^{17}h^{10}}$

3. $\sqrt{24m^5n^4} \cdot \sqrt{40mn^7}$

4. $3\sqrt{2}(8\sqrt{7} - 5\sqrt{2})$

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

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Answers

Simplify each. Make sure your answer doesn't have any exponents that are zero or negative.

1. $\sqrt{32a^{14}b^{25}}$
 $\sqrt{16 \cdot 2}$

$= \boxed{4a^7b^{12}\sqrt{2b}}$

2. $\sqrt[3]{108g^{17}h^{10}}$
 $\sqrt[3]{27 \cdot 4}$

$= \boxed{3g^5h^3\sqrt[3]{4g^2h}}$

3. $\sqrt{24m^5n^4} \cdot \sqrt{40mn^7}$
 $\sqrt{8 \cdot 3} \quad \sqrt{4 \cdot 10}$
 $= \sqrt{8^2 \cdot 3 \cdot 5 m^6 n^{11}}$

$= \boxed{8m^3n^5\sqrt{15n}}$

4. $3\sqrt{2}(8\sqrt{7} - 5\sqrt{2})$

$24\sqrt{14} - 15 \cdot 2$

$= \boxed{24\sqrt{14} - 30}$

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

$= \boxed{8}$

	6	-2√5
3	18	-6√5
+√5	+6√5	-2·5 = -10