Bellwork Alg 2B Thursday, September 21, 2017

Simplify each.

1. $8\sqrt{108} - 7\sqrt{48} - 2\sqrt{75}$

2. $9\sqrt[3]{250} + 5\sqrt{64} - 11\sqrt[3]{128}$

3. $(2\sqrt{3} - 5\sqrt{11})(4\sqrt{3} - 3\sqrt{11})$

4. The planned width of a rectangular garden is $\frac{2}{3}$ of its length. If 4 meters were added to the garden's width and 4 meters were also subtracted from the garden's length, the garden would be a square. Find the width of the rectangular garden.

Bellwork Alg 2B Thursday, September 21, 2017 Answers

Simplify each.

1. $8\sqrt{108} - 7\sqrt{48} - 2\sqrt{75}$

$36\cdot 3 \quad 16\cdot 3 \quad 25\cdot 3$

$48\sqrt{3} - 28\sqrt{3} - 10\sqrt{3}$

$= 10\sqrt{3}$

2. $9\sqrt[3]{250} + 5\sqrt{64} - 11\sqrt[3]{128}$

$125\cdot 2 \quad 64\cdot 2$

$45\sqrt[3]{2} + 40 - 44\sqrt[3]{2}$

$\sqrt[3]{2} + 40$

3. $(2\sqrt{3} - 5\sqrt{11})(4\sqrt{3} - 3\sqrt{11})$

$189 - 26\sqrt{33}$

	$2\sqrt{3}$	$-5\sqrt{11}$
$4\sqrt{3}$	$8\cdot 3 = 24$	$-20\sqrt{33}$
$-3\sqrt{11}$	$-6\sqrt{33}$	$15\cdot 11 = 165$

4. The planned width of a rectangular garden is $\frac{2}{3}$ of its length. If 4 meters were added to the garden's width and 4 meters were also subtracted from the garden's length, the garden would be a square. Find the width of the rectangular garden.