Bellwork Alg 2 Thursday, January 30, 2020

Simplify each . Assume that all variables are positive quantities. Give answer in reduced radical form.

1.  $\sqrt{30w^3x^7} \cdot \sqrt{18w^4x^{11}}$ 

2.  $\sqrt{28} - 5\sqrt{96} + 2\sqrt{150} - 4\sqrt{63}$ 

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Answers

Simplify each . Assume that all variables are positive quantities. Give answer in reduced radical form. 1.  $\sqrt{30w^3x^7} \cdot \sqrt{18w^4x^{11}}$ 

$$= \sqrt{36.15} \, w^7 \, x^{18}$$

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$$= \sqrt{6} \, w^3 \, x^9 \, \sqrt{15} \, w$$

2. 
$$\sqrt{28} - 5\sqrt{96} + 2\sqrt{150} - 4\sqrt{63}$$

=  $\sqrt{4.7} - 5\sqrt{16.6} + 2\sqrt{25.6} - 4\sqrt{9.7}$ 

=  $2\sqrt{7} - 5.4\sqrt{6} + 2.5\sqrt{6} - 4.3\sqrt{7}$ 

=  $2\sqrt{7} - 20\sqrt{6} + 10\sqrt{6} - 12\sqrt{7}$ 

=  $\sqrt{-10\sqrt{7} - 10\sqrt{6}}$