

Algebra 1 Bellwork Wednesday, June 3, 2015

1. Simplify $\sqrt{12c^8d^{21}} \cdot \sqrt{18cd^{15}}$

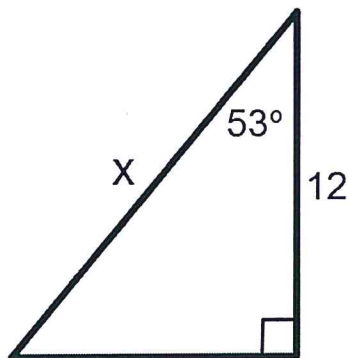
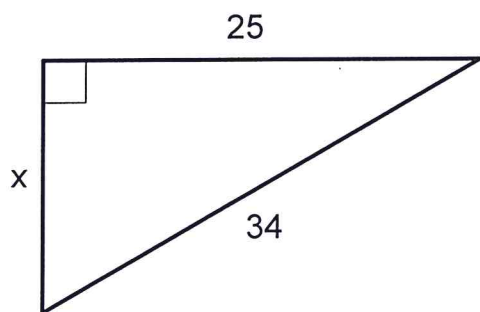
2. Simplify $(5\sqrt{2} + \sqrt{7})(\sqrt{2} - 3\sqrt{7})$

3. Rationalize the denominator. $\frac{36w^2g^7}{\sqrt{14w^3g^5}}$

4. Find the third number in this Pythagorean Triple: 140, 149, _____

5. Find x to the nearest hundredth.

6. Find x to the nearest hundredth



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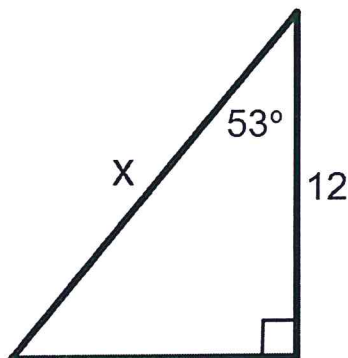
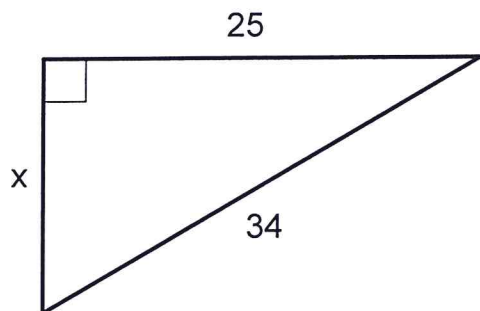
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Bellwork Answers

Alg 1

WED, June 3, 2015

$$\textcircled{1} \sqrt{12c^8d^{21}} \cdot \sqrt{18cd^{15}} = \sqrt{216c^9d^{36}} \\ \begin{matrix} \uparrow & \uparrow \\ 6 \cdot 2 & 6 \cdot 3 \\ \swarrow & \searrow \\ & 6^2 \cdot 6 \end{matrix} \\ = \boxed{6c^4d^{18}\sqrt{6c}}$$

$$\textcircled{2} (5\sqrt{2} + \sqrt{7})(\sqrt{2} - 3\sqrt{7}) = \boxed{-11 - 14\sqrt{14}}$$

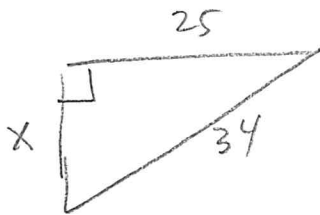
	$\sqrt{2}$	$-3\sqrt{7}$
$5\sqrt{2}$	$5 \cdot 2 = 10$	$-15\sqrt{14}$
$+\sqrt{7}$	$+\sqrt{14}$	$-3 \cdot 7 = -21$

$$\textcircled{3} \frac{36w^2g^7}{\sqrt{14w^3g^5}} \cdot \frac{\sqrt{14wg}}{\sqrt{14wg}} = \frac{36w^2g^7\sqrt{14wg}}{14w^2g^3} = \boxed{\frac{18g^4\sqrt{14wg}}{7}}$$

$\swarrow$
 $= \sqrt{14^2 w^4 g^6}$

$$\textcircled{4} \text{ either } 140^2 + 149^2 = c^2 \text{ or } a^2 + 140^2 = 149^2 \\ c = 204.45 \text{ X} \quad \boxed{a = 51}$$

$\textcircled{5}$ Use Pythagorean Theorem

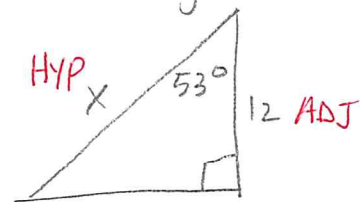


$$34^2 = X^2 + 25^2$$

$$\sqrt{34^2 - 25^2} = \sqrt{X^2}$$

$$\boxed{X = 23.04}$$

$\textcircled{6}$ Use Trigonometry



SOH CAH TC

$$\cos 53 = \frac{12}{X}$$

$$\boxed{X = 19.94}$$