


Happy April Fools!



\* 14 questions  
Plus a Bonus!  
from 21 → 40%  
→ 60% new

Apr 1-10:52 AM

10.6  
#4)  $6 - \sqrt{3y-4} = 2$

\* We must first isolate a radical.

$$6 - 2 = \sqrt{3y-4}$$

$$(4)^2 = (\sqrt{3y-4})^2$$

$$16 = 3y - 4$$

$$20 = 3y$$

$$\frac{20}{3} = y$$

Check

$$6 - \sqrt{3(\frac{20}{3}) - 4} = 2$$

$$6 - \sqrt{20 - 4} = 2$$

$$6 - \sqrt{16} = 2$$

$$6 - 4 = 2$$

$$2 = 2 \checkmark$$

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#8)  $(\sqrt{y-7})^2 = (7-\sqrt{y})^2 = 0 \pm 4!$

radical already isolated

$$y-7 = (7-\sqrt{y})(7-\sqrt{y})$$

$$= 49 - 7\sqrt{y} - 7\sqrt{y} + y$$

$$y-7 = 49 - 14\sqrt{y} + y$$

$$-49 - 7 = -14\sqrt{y}$$

$$\frac{-56}{-14} = \frac{-14\sqrt{y}}{-14}$$

$$4 = \sqrt{y}$$

$$16 = y$$

Check

$$\sqrt{16-7} = 7 - \sqrt{16}$$

$$\sqrt{9} = 7 - 4$$

$$3 = 3 \checkmark$$

Apr 1-11:10 AM

10.4  
#14)  $(\sqrt{2x-3} + 7)(\sqrt{2x-3} - 7)$

$$\sqrt{(2x-3)^2} - 7\sqrt{2x-3} + 7\sqrt{2x-3} - 49$$

$$(2x-3)^{2/4} - 49$$

$$(2x-3)^{1/2} - 49$$

$$\sqrt{2x-3} - 49$$

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27 #3)

$$\frac{\sqrt[5]{96a^{12}b}}{\sqrt[5]{3a^2b^{-4}}} = \sqrt[5]{\frac{96a^{12}b^1}{3a^2b^{-4}}}$$

$$= \sqrt[5]{32a^{12-2}b^{1-(-4)}}$$

$$= \sqrt[5]{32a^{10}b^5}$$

$$= \boxed{2a^2b}$$

$$\sqrt[2]{x^2} = x$$

$$\sqrt[6]{y^6} = y$$

$$\sqrt[5]{b^5} = b$$

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$$\frac{\sqrt[5]{32a^{10}b^5}}{2ab} = \frac{2a^2b}{2ab}$$

$$= a$$

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q 6 #3) (-1, -4)

$$\begin{cases} 3x - y = 1 \\ 2x - 3y = 10 \end{cases}$$

①  $3x - 1 = y$

②  $2x - 3(3x - 1) = 10$   
 $2x - 9x + 3 = 10$   
 $-7x = 7$   
 $x = -1$

③  $3(-1) - y = 1$  sub into ①  
 $-3 - y = 1$   
 $-y = 4$   
 $y = -4$

Apr 1-11:37 AM

q 6 #1. h

$(10, 120)$  &  $(20, 220)$

$$m = \frac{220 - 120}{20 - 10} = \frac{100}{10}$$

$$= \frac{10}{1}$$

$h = mt + b$

$120 = 10 \cdot (10) + b$   
 $120 = 100 + b$   
 $20 = b$

$$h = 10t + 20$$

Apr 1-11:42 AM

q 3 #1  $A \cup B$

$A = \{3, 4, 5, 6\}$

$B = \{-2, -1, 0, 1, 2, 3, 4\}$

$A \cup B = \{-2, -1, 0, 1, 2, 3, 4\}$   
 $= \{x \in \mathbb{Z} \mid -3 < x < 7\}$

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Intersection "and"

$A = \{1, 2\}$   
 $B = \{2, 3\}$   
 $A \cap B = \{2, 3\}$

Apr 1-11:51 AM