



ALG 2 Bellwork

Wednesday, March 11, 2020

13

If $x > 3$, which of the following is equivalent

to $\frac{1}{\frac{1}{x+2} + \frac{1}{x+3}}$?

A) $\frac{2x+5}{x^2+5x+6}$

B) $\frac{x^2+5x+6}{2x+5}$

C) $2x+5$

D) x^2+5x+6

14

If $3x - y = 12$, what is the value of $\frac{8^x}{2^y}$?

A) 2^{12}

B) 4^4

C) 8^2

D) The value cannot be determined from the information given.

15

If $(ax+2)(bx+7) = 15x^2 + cx + 14$ for all values of x , and $a+b=8$, what are the two possible values for c ?

A) 3 and 5

B) 6 and 35

C) 10 and 21

D) 31 and 41



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If $x > 3$, which of the following is equivalent

$$\text{to } \frac{1}{\frac{1}{x+2} + \frac{1}{x+3}} ?$$

$$\frac{(x+2)(x+3)}{(x+2)(x+3)}$$

$$= \frac{(x+2)(x+3)}{(x+3) + (x+2)}$$

$$= \frac{(x+2)(x+3)}{2x+5}$$

A) $\frac{2x+5}{x^2+5x+6}$

B) $\frac{x^2+5x+6}{2x+5}$

C) $2x+5$

D) x^2+5x+6

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If $3x - y = 12$, what is the value of $\frac{8^x}{2^y}$?

A) 2^{12}

B) 4^4

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D) The value cannot be determined from the information given.

$$\frac{8^x}{2^y} = \frac{(2^3)^x}{2^y} = \frac{2^{3x}}{2^y}$$

$$= 2^{3x-y}$$

$$= 2^{12}$$

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If $(ax+2)(bx+7) = 15x^2 + cx + 14$ for all values of x , and $a+b=8$, what are the two possible values for c ?

A) 3 and 5

B) 6 and 35

C) 10 and 21

D) 31 and 41

$$ax \cdot bx = 15x^2$$

$$a \cdot b x^2 = 15x^2$$

$$ab = 15$$

$$a+b=8$$

2 #'s that multiply to 15 and add to 8.

a & b are 3 & 5

THE 2 possibilities are

$$(3x+2)(5x+7) \text{ AND } (5x+2)(3x+7)$$

	$3x$	$+2$
$5x$		$+10x$
$+7$	$+21x$	

middle terms:
 $31x$

	$5x$	$+2$
$3x$		$+6x$
$+7$	$+35x$	

middle term:
 $41x$

c could be 31 & 41

CONTINUE