

Bathroom breaks are to be
taken before class!!

Do **NOT** move the desk!!

Turn your phone **OFF**!!

Put your phone up!!

Sit down!! Be quiet!!

Prepare to work!!

Keep your hands to yourself!!

Products of Binomials

First

Outer

Inner

Last

3)

$$(x + 3)(2x + 1)$$

$$2x^2 + 7x + 3$$

5)

$$(x + 5)(3x + 2)$$

$$3x^2 + 17x + 10$$

33)

A diagram illustrating the multiplication of two binomials, $(x+3)(x+4)$. The terms x and 3 in the first binomial are underlined in blue. The terms x and 4 in the second binomial are underlined in blue. A green bracket connects the x in the first binomial to the x in the second binomial. An orange bracket connects the x in the first binomial to the 4 in the second binomial. A purple bracket connects the 3 in the first binomial to the x in the second binomial. A blue bracket connects the 3 in the first binomial to the 4 in the second binomial. Below the second binomial, the terms $+3x$ and $+4x$ are written in purple and blue respectively, with a purple bracket above $+3x$ and a blue bracket below $+4x$.

$$x^2 + 7x + 12$$

21)

$$(x + 6)(3x + 7)$$

The diagram illustrates the FOIL method for multiplying the binomials $(x + 6)$ and $(3x + 7)$. The terms x and 6 are underlined in red. The terms $3x$ and 7 are underlined in red. A blue box encloses the terms $+6$ and $+7x$, representing the inner and outer products. A pink box encloses the terms $+18x$ and $+42$, representing the first and last products. Green and orange lines connect the terms in the binomials to the corresponding terms in the boxes.

$$3x^2 + 25x + 42$$

7)

$$(3x + 2)(4x + 1)$$
$$12x^2 + 11x + 2$$

9)

$$(x + 4)(5x + 1)$$

$4 \cdot 5x$
 $+ 1x$

$$5x^2 + 21x + 4$$

iii)

$$(x + 8)(5x + 8)$$

$$5x^2 + 48x + 64$$

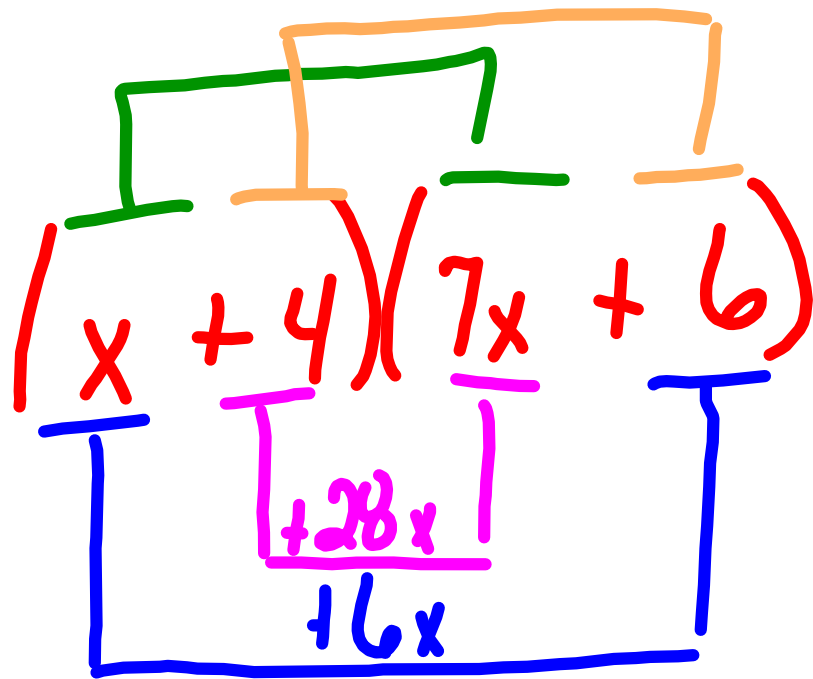
13)

$(2x + 1)(x + 2)$

$2x^2 + 4x + 1x + 2$

$2x^2 + 5x + 2$

21)

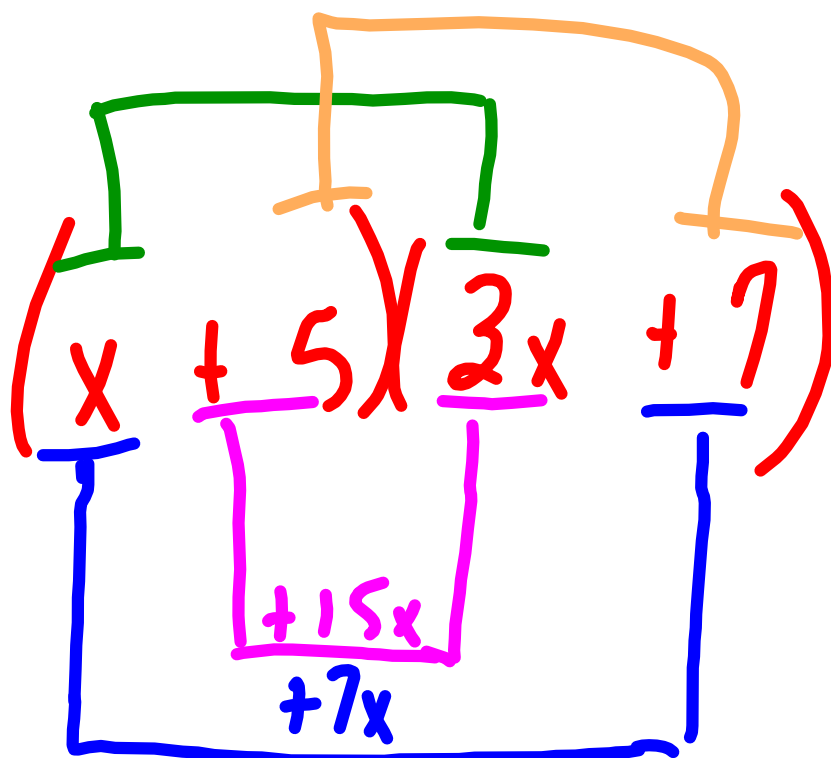


$$7x^2 + 34x + 24$$

23)

$$(3x + 7)(x + 3)$$
$$\begin{array}{r} \text{---} \quad \text{---} \\ 3x^2 + 9x + 7x + 21 \\ \text{---} \quad \text{---} \\ 3x^2 + 16x + 21 \end{array}$$

29)



$$3x^2 + 22x + 35$$