

Warm Up

1) Expand $3(2x+5)(x+4)$

2) Factor

a) $30x^4y^7 - 24x^3y - 18x^2y$

b) $14a-12b$

c) $1-64t^2$

d) $2x^2-x-6$

e) $x^2 + 6x + 9$

1) Expand $3(2x+5)(x+4)$

The diagram shows the expansion of $(6x+15)(x+4)$ using the FOIL method. Colored arrows indicate the following steps: a green arrow from 6x to x, a red arrow from 6x to 4, a purple arrow from 15 to x, and an orange arrow from 15 to 4. A blue arrow also points from 6x to 4.

$$6x^2 + 24x + 15x + 60$$

$$6x^2 + 39x + 60$$

2) Factor

a) $30x^4y^7 - 24x^3y - 18x^2y$

$$6x^2y(5x^2y^6 - 4x - 3)$$

b) $14a - 12b$

$$2(7a - 6b)$$

perfect squares
 $\downarrow \quad \downarrow$
 c) $1-64t^2$ diff of squares

$$(1-8t)(1+8t)$$

① ①

Hard trinomial

$\frac{x}{-12}$	$\frac{+}{-1}$
$+1, +2$	
$+2, +6$	
$+3, +4$	✓

d) $2x^2-x-6$

$$2x^2-4x+3x-6$$

$$2x(x-2)+3(x-2)$$

$$(x-2)(2x+3)$$

$$\begin{array}{l} e) |x^2 + 6x + 9 \\ (x+3)(x+3) \\ (x+3)^2 \end{array} \quad \begin{array}{l} \frac{x}{+9} \\ 1,9 \\ +3,+3 \end{array} \quad \begin{array}{l} \frac{+}{+6} \end{array}$$

Perfect square
trinomial
or
Simple

Factor this
 $3x(x-2) + 7(x-2)$

$(x-2)(3x+7)$

on test

Test type question

~~X~~
 Study $9x^2 + \underline{\quad}x + 25$

\uparrow \downarrow \uparrow
 $(3x)^2$ $2(ab)$ $(5)^2$
 \downarrow $2(3 \times 5)$ \downarrow
 a 2×15 b
 30

How can I make this a perfect square trinomial???

ON Test

Ex) Find term to make perfect square trinomial

$4a^2 - \underline{\quad}a - 16$
 \downarrow \downarrow \downarrow
 2 $2(2)(4)$ 4
 $\boxed{16}$

$(ax)^2 + \underline{2ab} + b^2$
~~x~~

The image shows a hand-drawn homework board on a textured background. The board is a dark grey rectangle with a green border. At the top, there are illustrations of a ruler, a small photo of a person, a yellow pencil, and a pink eraser. The text on the board reads: "Class/ Homework", "Page 194 #4a,c, #5, #6", "Page 198", and "Questions: 1d 4,13, 20a, , 28ab, 30ab, 32,33,". Below the text are illustrations of a math book labeled "Math", a red apple, a blue pencil, a glue bottle labeled "Glue", and a blue crayon. To the left of the board, the name "Laura Colford" is written in blue and circled. To the right, a list of topics is written in blue: "1) GCF", "2) Simple tri", "3) Hard", "4) diff of Squar", and "5) Perfect Square trinomial". Below the board, the text "Prime Numbers 2, 3, 5, 7," is written in blue. A blue arrow points from the text "ans to LCM" to the "1d" in the board's text.

Laura Colford

Class/
Homework

Page 194 #4a,c, #5, #6
Page 198
Questions: 1d 4,13, 20a, , 28ab, 30ab, 32,33,

1) GCF
2) Simple tri
3) Hard
4) diff of Squar
5) Perfect Square trinomial

ans to LCM

Math

Glue

Prime Numbers 2, 3, 5, 7,

pg 198

$$13b) \quad 3y^3 - 12y^2 + 15y$$
$$3y (y^2 - 4y + 5)$$

DN
es
+
F
ca
+
o
o

$$\begin{array}{r} x \\ +5 \\ -1,5 \\ \hline \end{array} \quad \begin{array}{r} + \\ -4 \\ \hline \end{array}$$

does not add to -4

Attachments

Factoring TEST Review Worksheet (A Mix of Simple Hard & Special).pdf

Day 12.5_ Perfect Squares Test Review _HW Solutions to Day 12.notebook