# Algebra 1B Live Lesson

## U3L9: Polynomials and Factoring Unit Review

CONNECTIONS
ACADEMY®

# Agenda

1. Review selected problems and topics to help complete the Unit 3 Sample Work and study for the Unit 3 Test.

2. Use the 2-column note system to take better notes in math class. Bring your math notebook and pen or pencil to each math LiveLesson class.

# 2-Column Notes Template

1. Announcements/To Do's

2. School-Wide Learner Outcomes

3. LL Objectives

4. Vocabulary words

5. Problems

6. Summary (End of class)

1. Write down important details.

2. What are you going to work on this week?

4. Definitions (fill in as we go)

5. Steps to solving problems

6. 1 or 2 sentences about the LL class.

# Reminders and To – Do's

| Information | What to do |
|---|---|
| 1. Complete 1 math lesson per day. | 1. Go to your Planner in Connexus to find the math lesson for the day |
| 2. Check your WebMail every day | 2. Go to Connexus to find WebMail |
| 3. Be prepared to spend 4 - 6 hours per day on schoolwork. | 3. Complete lessons for the day from your Planner. Do not get behind on lessons. |
| 4. Remind your Learning Coach to take daily attendance | 4. Have your Learning Coach log into Connexus daily. |

# Reminders and To – Do's

| Information | What to do |
|---|---|
| 5. Go to the Message Board first for information about our math class. | |
| 6. Contact Mr. Elizondo for math questions. | 6. Call (559) 549 - 3244 and leave a voicemail if call is not answered. |
| Remember: You need at least 2 phone calls with Mr. Elizondo per semester. | Make an appointment at: https://elizondo.youcanbook.me |
| | Send a WebMail |

# 1. U3L7

Factor the expression.

| | a | b | c |
|---|---|---|---|

$$6x^2 - 23x + 20$$

$a*c = 6*20$

$a*c = 120$

$-8x, -15x$

$6x^2 - 23x + 20$

$6x^2 + \underline{\quad} + \underline{\quad} + 20$

$6x^2 + \underline{-15x} + \underline{-8x} + 20$

$3x(2x - 5) - 4(2x - 5)$

**(3x - 4)(2x – 5)**

-1*-120
-2*-60
-3*-40
-4*-30
-5*-24
-6*-20
-8*-15
-10*-12

Factor the expression.  $27x^2 + 90x + 75$

a*c = 9*25

a*c = 225

 a          b          c

3(9x² + 30x + 25)

3(9x² + ___ + ___ + 25)          15x, 15x

3(9x² + <u>15x</u> + <u>15x</u> + 25)

3[3x(3x + 5) + 5(3x + 5)]

1*225
3*75
5*45
9*25
15*15

**3(3x + 5)(3x + 5) or 3(3x + 5)²**

# 3. U3L6

Factor the expression. $8v^2 + 34v - 30$

$$a*c = 4*-15$$

$$a*c = -60$$

   a          b          c

$2(4v^2 + 17v - 15)$

$2(4v^2 + \underline{\quad} + \underline{\quad} - 15)$       20v, -3v

$2(4v^2 + \underline{20v} + \underline{-3v} - 15)$

$2[4v(v + 5) + -3(v + 5)]$

**$2(4v - 3)(v + 5)$**

1*-60
-1*60
2*-30
-2*30
3*-20
-3*20
4*-15
-4*15
5*-6
-5*6

# 4. U3L6

Factor the expression.

$$3d^{2} + 23d + 14$$

a     b     c

a*c = 3*14

a*c = 42

$3d^2 +$ ___ $+$ ___ $+ 14$

2d, 21d

1*42
2*21
3*14
6*7

$3d^2 + 21d + 2d + 14$

$3d(d + 7) + 2(d + 7)$

**(3d + 2)(d + 7)**

Factor the expression.

$$r^2 + 19rs + 90s^2$$

1*90
2*45
3*30
6*15
9*10

**(r + 10s)(r + 9s)**

**Check**

$r^2 + 9rs$

$+ \quad \dfrac{+ 10rs + 90s^2}{r^2 + 19rs + 90s^2}$

# 6. U3L5

Factor the expression. $n^2 - 3n - 10$

1*-10
-1*10
2*-5
-2*5

**(n - 5)(n + 2)**

**Check**

$$n^2 + 2n$$

$$+ \quad -5n - 10$$

$$n^2 - 3n - 10$$

# 7. U3L4

Simplify the product.  $(p^4 - 9q^2)^2$

$(p^4 - 9q^2)(p^4 - 9q^2)$

$p^8 - 9p^4q^2$

$+ \quad - 9p^4q^2 + 81p^4$

$p^8 - 18p^4q^2 + 81p^4$

# 8. U3L4

Simplify the product. $(g-7h)^2$

(g – 7h) (g – 7h)

g$^2$ - 7gh

+      - 7gh + 49h$^2$

**g$^2$ – 14gh + 49h$^2$**

# Questions?

- Check the Message Board first

- Send a WebMail

- You can also make an appointment at https://elizondo.youcanbook.me

- You can also call me at (559) 549-3244. If I'm not available to answer your call, please leave a voicemail with your full name and phone number.