

Using Technology to Improve Student Learning

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Innovative Uses of Technology

Course Development

Podcasts = ChalkTalks = MathCasts

Learning Object Design

Student Think Alouds

Cultural Connection

Building Content Vocabulary

The screenshot displays a digital learning interface with four tabs: Question, Tutorial, ChalkTalk, and Self-Check. The 'ChalkTalk' tab is active, showing a math problem: "In a store, pencils can be bought only in packs of 5 or in packs of 8. If Annie bought 42 pencils, how many packs of 8 did she buy?". Below the question are four multiple-choice options: A) 2, B) 3, C) 4, and D) 5. Handwritten purple ink solutions are visible, including the equation $8x + 5y = 42$ and a table of values for x and y . A green 'WORD' button is highlighted, leading to a vocabulary card for the word 'anatomy'. The card includes buttons for 'Pronunciation', 'Audio', 'IMAGE', 'Definition', 'Plural', 'Literal Meaning', and 'Root & Affixes'.

Question Tutorial **ChalkTalk** Self-Check

In a store, pencils can be bought only in packs of 5 or in packs of 8. If Annie bought 42 pencils, how many packs of 8 did she buy?

A) 2
B) 3
C) 4
D) 5

$8x + 5y = 42$
 $8(1) + 5y = 42$
 $5y = 34$
 $y = 34/5$
 $8(2) + 5y = 42$
 $5y = 26$

x	y
1	No
2	No
3	No
4	Yes

$8(4) + 5y = 42$
 $5y = 10$

WORD Pronunciation Audio IMAGE

Word
anatomy
Definition Plural
Literal Meaning Root & Affixes

Course Development & Learning Object Design

- Supplementary course materials and examples
- Remedial or refresher lessons
- How-to-Tutorials

<< Problem Answer ChalkTalk MoreInfo >>

Find a polynomial $f(x)$ of degree 3 with real coefficients that has $2i$ and 3 as zeros and where $f(1) = 20$.

$$\begin{aligned}
 &(x-3)(x-2i)(x+2i) \quad \begin{matrix} i = \sqrt{-1} \\ i^2 = -1 \end{matrix} \\
 &(x-3)(x^2 + 2xi - 2xi - 4i^2) \\
 &(x-3)(x^2 + 4) \\
 &a(x^3 - 3x^2 + 4x - 12)
 \end{aligned}
 \left\{
 \begin{aligned}
 20 &= a(1^3 - 3(1)^2 + 4(1) - 12) \\
 20 &= a(1 - 3 + 4 - 12) \\
 20 &= a(-10) \\
 -10 & \quad -10 \\
 -2 &= a
 \end{aligned}
 \right.$$

$$f(x) = -2(x^3 - 3x^2 + 4x - 12)$$

3:34 / 3:46

Examples

- Praxis II Moodle Course
 - Pre-Service Student Developers ([link](#))
- College Algebra Review
 - Faculty and Staff Developers ([link](#))
- MathCast Project
 - ([project link](#)) ([blog](#))



Student Think Alouds

Close your eyes. Think about the steps you go through to solve the following:

The original price of a certain car was 25% greater than its cost to the dealer. The actual selling price was 25% less than the original price. If c is the cost of the car and p is the selling price. What is the equation that represents p in terms of c ?



Student Think Alouds

Think-alouds make invisible mental processes visible to students.

The screenshot shows a software interface with a blue header containing four tabs: "Question", "Tutorial", "Chalk Talk", and "Self Check". The "Self Check" tab is selected. Below the tabs is a question box with a yellow border containing the following text: "1. A carpenter has a board that is three feet long. She first removes a piece that is $1\frac{1}{4}$ ft. long. Next, she removes a 6 inch section of the board. Finally she removes a 9 inch piece of the board. If there are 12 inches in a foot, how much of the board is left after the carpenter removed the three different lengths?". Below the question are four multiple-choice options, each with a letter in a yellow circle: "A $2\frac{1}{2}$ ft.", "B $\frac{1}{2}$ ft.", "C $19\frac{3}{4}$ in.", and "D 21 in.". At the bottom of the question box are navigation arrows labeled "previous" and "next", and the text "1 of 10". Below the question box is a blue footer with the text "Unit Analysis Completed" and four small circular icons: a green checkmark, a red cross, a blue house, and a blue speech bubble.

The handwritten work on the right side of the image shows a diagram of a horizontal line with vertical end caps. Below the diagram is the equation $36\text{ in} - 30 = 6$. Below that is a vertical addition problem: $12 + 3 = 15\text{ in}$, $+ 6$, $+ 9$, with a horizontal line under the sum and the number 30 written below it.

Vocabulary Connections

- Hmong Translation
- Video Glossary
- Critical Words in Anatomy ([link](#))

nag: rain

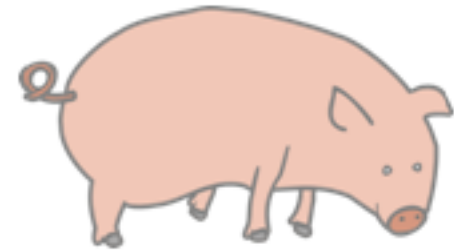
niam: mother

npua: pigs

me ntxhais: my dear

muv: bees

qaib: chickens





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