

Russell County Schools Non-Traditional Instructional Expectations

Day: 4

School: RCHS Course/Subject: Algebra I Teacher: Pam Wilson

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Learning Target: *Students will use reasoning skills to solve "Who Am I?" Puzzles*

Lesson Expectations:

Students will complete and give explanation to reasoning on how they solved / thought about the puzzle as they were solving it.

Solving Who Am I? Puzzles

Who Am I?

- The product of my digits is 7.
- The sum of my digits is 8.
- My units digit is greater than my tens digit.

t	u

Who Am I?

- The product of my digits is 16.
- The sum of my digits is 8.

t	u

Who Am I?

- I am even.
- My tens digit is 1.
- The product of my three digits is 12.
- h is four less than my units digit.

h	t	u

Who Am I?

- I am a multiple of 10.
- My hundreds digit is one more than my tens digit.
- The sum of my three digits is 7.

h	t	u

Who Am I?

- I am odd.
- $u > t$
- My hundreds digit is prime.
- $t = 2h$
- Two of my digits are square numbers.

h	t	u

Who Am I?

- I am in the thirties.
- $d < t$
- My units digit is twice my tens digit.
- d is four less than u .
- The product of d and t is u .

t	u	d

Who Am I?

- t is a perfect square.
- $h - u = 0$
- The sum of h and u is 13 more than t .
- I am divisible by 3.

h	t	u

Who Am I?

- $u - h = t$
- $3t = h$
- All of my digits are not odd.
- Not all of my digits are odd.
- Not all of my digits are divisible by 3.

h	t	u

For Alternate Assignment Options:

solveme.edc.org
Visualpatterns.org
Which One Doesn't Belong Website: wodb.org
Estimation180.com
Desmos.com student.desmos.com
Would You Rather Math

For Supplemental Resources and Support: pamwilson.wordpress.com

For Teacher Support: pam.wilson@russell.kyschools.us

***Reminder: Assignments are due back to teachers within 2 school days.**

Who Am I? Puzzles: Explain/support your reasoning.

This set is a little more difficult than those on the front page. The reasoning used in these will strengthen students ability to use given information and formulate a solution.

Who Am I?

n	k	h	t	u

- $t < u$
- $h + k = u$
- I am a multiple of 5.
- k and h are square numbers.
- My only even digit is k .
- I'm less than 75432.
- No two of my digits are the same.
- $t + k = n$

Who Am I?

h	t	u

- $u^2 = h + t$
- $h + t = 2u$
- $h > t$
- $ht > u$

Who Am I?

k	h	t	u

- No two of my digits are the same.
- Three of my digits are powers of 2.
- At least one of my digits is prime.
- The sum of my digits is a perfect square.
- $h + t = k + 2u$
- Three of my digits are perfect squares.
- The difference between t and u is 5.
- $9h = t$

Who Am I?

h	t	u

- I'm odd.
- $h + t + u = 6$
- My units digit $>$ my tens digit.
- $h > t$
- $t + u = h$
- The product of my three digits is 0.

Who Am I?

u	d	c	m

- I am less than 1.63.
- I am greater than 1.6.
- c is one-third of d .
- $m > c^3$