Problem of the Month



Courtney's Collection



Level A

Courtney has a bank of pennies, nickels and dimes. Courtney pulled out three coins from the bank. Name the coins she picked. How much money does she have?

Show how you figured it out.

Show a different way that Courtney could pick three coins. How much does Courtney have now? Show how you figured it out.

Problem of the Month (c) Noyce Foundation 2014. Courtney's Collection

Page 1

This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 3.0 Unported License (<u>http://creativecommons.org/licenses/by-nc-nd/3.0/deed.en_US</u>).

Level B

How many different ways can Courtney pick three coins out of her bank? Show all the ways you can find.

What are the different amounts of money Courtney would have by picking any three coins?

How do you know you found all the possible ways? Explain your answer.

Problem of the Month (c) Noyce Foundation 2014. Courtney's Collection

Page 2

This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 3.0 Unported License (<u>http://creativecommons.org/licenses/by-nc-nd/3.0/deed.en_US</u>).

Level C

Courtney visited her grandmother. Her grandmother used to collect stamps. She had a shoebox full of 5 cent, 6 cent and 7 cent stamps. Courtney thought, "I could mail a lot of different-sized letters and postcards with these stamps." She tried to figure out the different amount of postage she could make with a combination of those stamps. What totals could she make and what totals are impossible?

Explain how you found your solution. How do you know your solution is correct?

Problem of the Month (c) Noyce Foundation 2014. Courtney's Collection

Page 3

This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 3.0 Unported License (<u>http://creativecommons.org/licenses/by-nc-nd/3.0/deed.en_US</u>).