LINEAR DIOPHANTINE EQUATION WORD PROBLEMS

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(1) A small clothing manufacturer produces two styles of sweaters: cardigan and pullover. She sells cardigans for $31 each and pullovers for $28 each. If her total revenue from a day's production is $1460, how many of each type might she manufacture in a day?
(2) A piggy bank contains 24 coins, all of which are nickels, dimes, or quarters. If the total value of the coins is two dollars, what combination of coins are possible?
(3) When Mr. Smith returned from Europe in 1966, he found that he had in his possession 35 British sixpence coins, 55 French ten-centime pieces, and 77 Greek drachmas. Mr. Smith converted each of these coins to its value in American money (rounded off to the nearest cent) and found that the total was worth $5.86. How much was each coin worth in 1966 (to the nearest cent)?
(4) A farmer purchased 100 head of livestock for a total cost of $4000. Prices were as follow: calves $120 each, lambs $50 each, piglets $25 each. If the farmer obtained at least one animal of each type, how many did he buy?
(5) How many ways are there to make $200 from 1000 coins, each of which is a quarter, dime, or nickel?

Sources:

(1) https://math.stackexchange.com/questions/742836/linear-diophantine-equation-word-problem
(2) https://math.stackexchange.com/questions/723403/diophantine-equation-word-problem/723413
(3) https://math.stackexchange.com/questions/2030790/3-variable-diophantine-equation-word-problem-coins
(4) https://math.stackexchange.com/questions/697017/help-solving-the-diophantine-word-problem
(5) https://brilliant.org/wiki/system-of-linear-diophantine-equations/