

Math Writing Bank Account - Integers

P. 47, # 38

A bank customer has \$172 in a bank account. She withdraws \$85 per month for the next 3 months. She also writes 4 checks for \$45.75 each. How much money should she deposit to ensure that her balance is at least \$25 at the end of the three months?

Q. How much needs deposited for \$25 balance at end of 3 months

f_1 \$172 already f_4 4 checks
 f_2 \$85 per month f_5 \$45.75 each
 f_3 3 months f_6 \$25 end balance
 f_7 3 months time

$$\begin{array}{r} \$85 \times 3 \\ 85 \\ \times 3 \\ \hline \$255 \end{array}$$

multiply \$85 x 3 months
taken out = \$255 total w/draw

$$\begin{array}{r} \$45.75 \times 4 \\ 45.75 \\ \times 4 \\ \hline \$183.00 \end{array}$$

multiply \$45.75 x 4 to find
total amount checks written

\$183 total in checks

$$\begin{array}{r} \$255.00 \\ + \$183.00 \\ \hline \$438.00 \end{array}$$

add total withdrawn and
total checks to find out
how much taken altogether =
\$438

$$\begin{array}{r} \$172 \\ - \$438 \\ \hline \end{array}$$

Subtract \$172 - \$438 to find
how much money needs to be
replaced

$$\begin{array}{r} 3438 \\ - 172 \\ \hline = 266 \end{array}$$

converted numbers to absolute
value to subtract.

subtracted and found -266
needed replacing

$$\begin{array}{r} 1 \\ 266 \\ + 25 \\ \hline 291 \end{array}$$

added \$266 to be replaced plus
the \$25 balance = \$291

so the answer is \$291
need depositing

I needed to find out how much money she needed to deposit to make sure that she had at least \$25 at the end of three months. I started by finding out how much she spent. First I multiplied 3 times \$85 to find \$255 in withdrawels. Second, I multiplied 4 checks times \$45.75 to get \$183. Then I added the withdrawels to the checks for a total of \$438 in spending. Next I subtracted her starting amount of \$172 minus how much she spent \$438. By finding absolute values and subtracting the biggest minus smallest, I found she needed to replace \$266. Finally I added another \$25 to make sure of her balance at the end. I came up with \$291. The answer is that she needs to deposit \$291 to have at least \$25 at the end of 3 months.