

Optional algebra challenge

1. Find the value of the letter in the following equations:

a. $4z + 13 = 15$

b. $7 + 2y = 27$

c. $7x - 2 = 12$

d. $80 - 4w = 52$

e. $3 + 5t = 48$

f. $3r + 2 = 17$

2. Harry has been given the following equation

$$4a - 3 = 49$$

He says that $a = 184$. Explain Harry's mistake.

3. Miss Hirst has been given the following cake recipe but she is unsure what she actually needs. Can you help her work it out?

Flour - 110g

Sugar - $5y + 15$

Butter - $12(y - 10)$

Butter cream - $23y + 13$

Sugar is the same as flour.

Find how much butter and butter cream she needs.