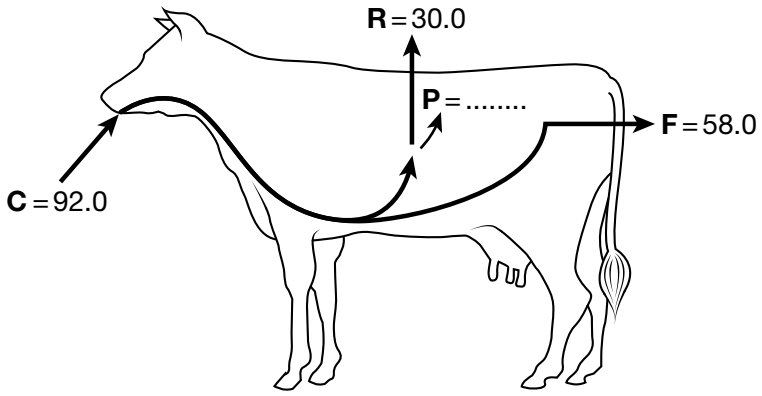
0 6 **Figure 6** shows the transfer of energy through a cow. The values are in kJ × 10^6 per year.

Figure 6



Key: **C** = energy consumed in food
F = energy lost in faeces and urine
P = energy used in production of new tissue
R = energy lost by respiration

0 6 . 1 Complete the following equation for energy used in the production of new tissue. Use the letters **C**, **F** and **R**.

[1 mark]

P = _____

0 6 . 2 Calculate the value of **P** using the values given in **Figure 6**.

[1 mark]

P = _____ kJ × 10^6 per year

0 6 . 3 It has been estimated that an area of 8100 m^2 of grassland is needed to keep one cow. The productivity of grass is 21 135 kJ/m^2/year.

Calculate the percentage of the energy in the grass that is used in the production of new tissue in one cow. Show your working.

[2 marks]

Answer: _____ %