14

Northern Gas

Standing charge is 9.71 pence per day

Gas costs 4.27 pence per unit

Colin's gas meter was read on 1st September. The reading was

| 1 | 4 | 3 | 7 | 9 |

The meter was read again on 1st December. The reading was

| 2 | 2 | 1 | 9 | 9 |

(a) Complete the box to show the number of units used.

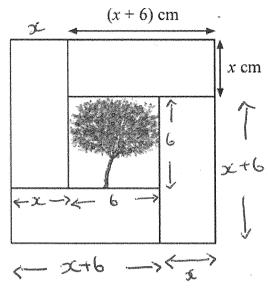| | 7 | 8 | 2 | 0 |

[1]

(b) Calculate the total gas bill that Colin will have to pay for the 91 days from 1st September, after VAT is charged at 5% on the total.

91 days at 9.71p each day

standing charge 883.61p

units 7820 × 4.27   33391.4p

Total   34275.01p

= £342.75

But VAT is 5%

5% is £17.14

Answer £ 359.89 [4]

9 Four identical rectangular tiles surround a picture as shown in the diagram to form a frame.

The sides of the rectangular tile are x cm and $(x + 6)$ cm.

(a) Find a formula for the perimeter P of the frame in its simplest form.

$$4x + 4(x+6)$$
$$4x + 4x + 24$$

Answer P = $8x + 24$ [2]

(b) What is the area of the picture?

Area is 6×6

Answer 36 cm^2 [2]

Write 0.00733 correct to 2 significant figures.

The 1st sig.fig is the first non-zero

Answer 0.0073 [1]