## National 4 Mathematics: Homework 8

## § 1 Straight Lines

1 (a) Complete the table below for $y=2 x-1$.

| $x$ | -1 | 1 | 3 |
| :--- | :--- | :--- | :--- |
| $y$ |  |  |  |

(b) Using the table in part (a), draw the graph of the line $y=2 x-1$ on the


2 State the gradient and the $y$-intercept point for each line below.
(a) $y=x-7$
(b) $y=-5 x+3$
(c) $y=3 x-10$
(d) $y=-4 x$
(e) $2 x+y=11$
(f) $2 y=x-5$

3 (a) Complete the table below for $y=2 x-3$.

| $x$ | -1 | 1 | 3 |
| :--- | :--- | :--- | :--- |
| $y$ |  |  |  |

(b) Using the table in part (a), draw the graph of the line $y=2 x-3$ on the grid below.


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## § 2 Pie Charts

1 Draw a pie chart to represent the information in the table below

| Type of House | Bungalow | Villa | Terraced | Flats | Semi-detached |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Houses Built | 300 | 150 | 450 | 1500 | 1200 |

## § 3 Mixed

1 a) Draw the next $T$-shape in this sequence.


Shape 4
b) Complete the following table.

| Shape number (s) | 1 | 2 | 3 | 4 | 5 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Number of dots (d) | 5 |  | 11 |  |  |


| 16 |
| :---: |
|  |

c) Write down a formula for the numbers of the dots, d when you know the shape number, s .
d) 101 dots are used in drawing a T-shape.

What is the shape number?
2 Calculate:
a) $5+2 \times 3$
b) $18-9 \div 3$
c) $36 \div 6+3$
d) $(25+15) \div 4$

3 Calculate:
a) $£ 5.60+£ 2.99$
b) $£ 17.80-£ 5.99$
c) $£ 2.99 \times 6$
d) $£ 6.35 \times 10$
e) $£ 26 \cdot 45 \div 5$
f) $£ 472 \div 100$

4 Ron works 4 days a week. He is paid $£ 49$ per day.
Calculate his weekly earnings.

