1) a) There are $\mathbf{1 2}$ parts per 100 shaded.

There is $\mathbf{1 2 \%}$ shaded.
b) There is $64 \%$ shaded.

2) Shape B will show $\mathbf{1 0 0 \%}$, with 25 more parts per hundred shaded.
3) Smallest to largest is: b (3\%), a (30\%), c (31\%), d (34\%)
4) Between 85-89 of the squares should be shaded.

1) a) False
b) True
2) a) True. As there are 47 squares coloured, this means between $45 \%$ and $50 \%$ of the squares are shaded.
b) False. If I shaded another 12 squares this would mean that $59 \%$ of the squares would have been shaded, not 60\%.
3) a) Various combinations are possible. Ensure all answers add to $\mathbf{1 0 0 \%}$.

- orange (75\%) + red (25\%)
- pink (10\%) + yellow (15\%) + orange (75\%)
- green (40\%) + pink (10\%) + blue (50\%)

4) Answers vary. Example answers shown:

- blue (50\%) + yellow (15\%) + black (5\%) + purple (30\%)
- red $(25 \%)+$ yellow $(15 \%)+$ blue $(50 \%)+$ pink $(10 \%)$

1) Piece $A$ could not have been from Dylan's square as we can see that approximately 69 of the pieces are not red and therefore Dylan could have only coloured in the remaining 31\% of this square.

Piece B could have been from Dylan's square as we can see that approximately 31 pieces are not red. This means that Dylan could have coloured in 65 of the other 69 pieces.
Piece C could have been from Dylan's square as we can see that approximately $\mathbf{2 4}$ pieces are not red. This means that Dylan could have coloured 65 of the other 76 pieces.

Piece $D$ could not have been from Dylan's square as we can see that at least 50 of the squares are not red so Dylan could only colour in the remaining 50\%.
2)

|  | Number sold | Percentage | Number left |
| :---: | :---: | :---: | :---: |
| Chocolate buns | $\mathbf{8 6}$ out of $\mathbf{1 0 0}$ | $\mathbf{8 6 \%}$ | $\mathbf{1 4}$ |
| Flapjack | $\mathbf{5 3}$ out of $\mathbf{1 0 0}$ | $53 \%$ | $\mathbf{4 7}$ |
| Gingerbread | 91 out of 100 | $\mathbf{9 1 \%}$ | $\mathbf{9}$ |

3) Both children have the same number of stickers.
