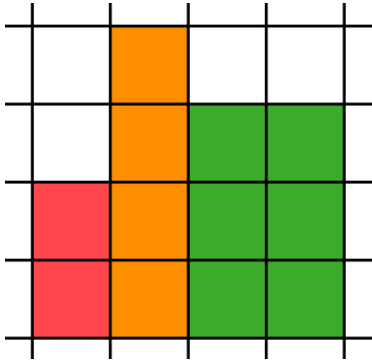




Range and Mode

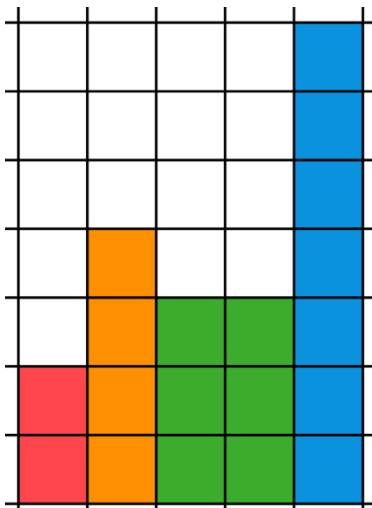
1 The diagram below represents the numbers 2, 4, 3, 3.



a What is the mode?
Explain how you can tell from the diagram.

b What is the range?
Explain how you can tell from the diagram.

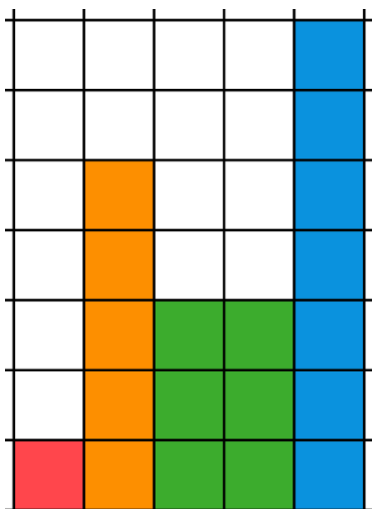
2 The diagram below represents the numbers 2, 4, 3, 3, 7.



a What is the mode?
Explain how you can tell from the diagram.

b What is the range?
Explain how you can tell from the diagram.

3 The diagram below represents the numbers 1, 5, 3, 3, 7.



a What is the mode?
Explain how you can tell from the diagram.

b What is the range?
Explain how you can tell from the diagram.

4 What is the relationship between your answers to question 3 and question 4?

5 Calculate the range of each of the following sets of numbers.

a 1, 4, 4, 6, 9

b 1, 4, 4, 9, 6

c 2, 5, 5, 10, 7

d -1, 2, 2, 7, 4

e -1, 2, 2, 2, 7, 4

f -2, 4, 4, 4, 14, 8

g -3, 4, 4, 4, 13, 8

h -6, 4, 4, 4, 26, 8

i -0.6, 0.4, 0.4, 0.4, 2.6, 0.8

6 Here are the same sets of numbers as question 5.

Write down the mode of each set of numbers.

j 1, 4, 4, 6, 9

k 1, 4, 4, 9, 6

l 2, 5, 5, 10, 7

m -1, 2, 2, 7, 4

n -1, 2, 2, 2, 7, 4

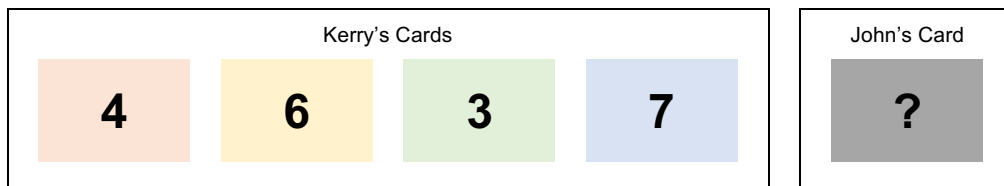
o -2, 4, 4, 4, 14, 8

p -3, 4, 4, 4, 13, 8

q -6, 4, 4, 4, 26, 8

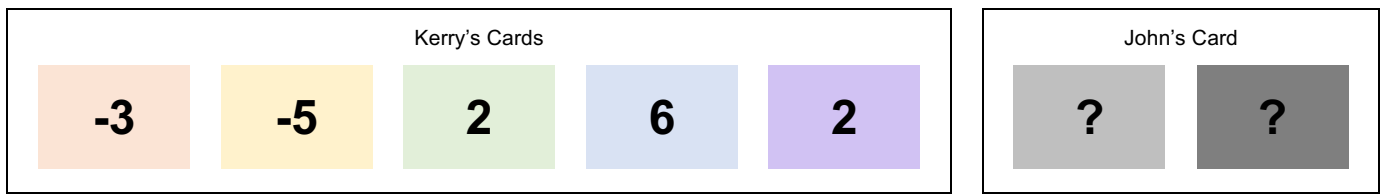
r -0.6, 0.4, 0.4, 0.4, 2.6, 0.8

- 7 Kerry and John are playing a card game.
All the cards have whole numbers on them.
She picks up four cards and looks at them. John picks one card from the pack.



- a If John's card is a 9, what is the range of the five cards?
- b What is the range if John's card is an 8?
- c If John's card is a positive number, what is John's card if the range is 7.
- d Give one possible value of John's card if the range is 3.
- e Why isn't your answer to part d the only possible value for John's card?
- f If John's card is a negative number, what is John's card if the range is 5?
- g If the range is 10, what are the two possible values of John's card?

- 8** Kerry and John are playing a second round of the same card game. This time Kerry picks five cards and John picks two cards. All the cards are between -8 and 8.



- a** If both of John's cards are a 6, what is the mode of the seven cards?
- b** If both of John's cards are -5, what is the mode of the seven cards?
- c** If one of John's cards is a 2 and the other is a 0. What is the mode of the seven cards?
- d** If the mode of the seven cards is 2 and one of John's cards is also a 2, write down all of the possibilities that John's second card could be.
- e** The range of the seven cards is 11 and the mode of the cards is 2. Write down one possibility for the numbers on John's cards.
- f** The range of the seven cards is 12 and the mode of the cards is 2. Write down one possibility for the numbers on John's cards.
- g** The range of the seven cards is 12 and the mode of the cards is 2. Write down one possibility for the numbers on John's cards.
- h** The range of the seven cards is 12 and the mode of the cards is 2. Write down ALL of the possibilities for the numbers on John's cards.
- i** Write down the values on John's two cards that maximises the total of the range and the mode.

ANSWERS

TBA