

## Week 11

### **This week in a nutshell:**

The skills and topics revisited in week 5 cover topics that have specific definitions. Students may need extra time for fact based retrieval. You may consider it appropriate for some students to have glossaries or notes available when completing the questions.

**Question 1:** Special types of number

**Question 2:** Averages and range

**Question 3:** Rounding and estimation

**Question 4:** Sequences

**Question 5:** Venn diagrams

There are no suggestions for discussion this half term. As the topics are revision of previously covered material, any conversations should be used to deal with remaining difficulties or misconceptions that arise during the week.

## Week 11: Day 1

1) Write down the first five even numbers.

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2) Calculate the mean of these numbers:

12, 8, 7, 6, 7

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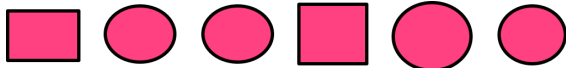
3) Round to the nearest integer:

a) 7.77

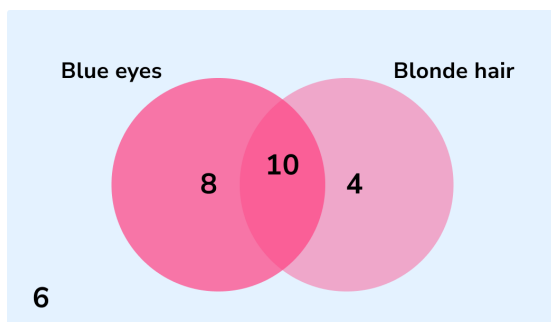
b) 23.13

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4) Draw the next two shapes in this sequence.



5) How many people had blonde hair, according to the Venn diagram?



## Week 11: Day 1 Answers

1) Write down the first five even numbers. 2, 4, 6, 8, 10

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2) Calculate the mean of these numbers:

12, 8, 7, 6, 7 8

---

3) Round to the nearest integer:

a) 7.77 8

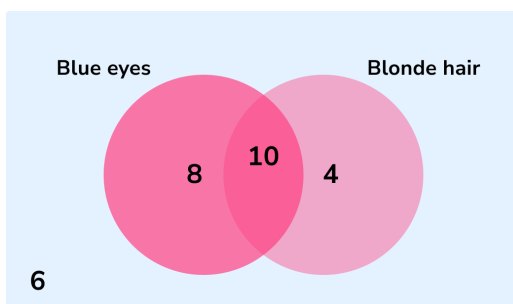
b) 23.13 23

---

4) Draw the next two shapes in this sequence.



5) How many people had blonde hair, according to the Venn diagram?



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## Week 11: Day 2

1) Write down the first five odd numbers.

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2) Calculate the range of these values:

42, 36, 21, 55, 37, 41

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3) Round to the nearest 10:

a) 415

b) 9999

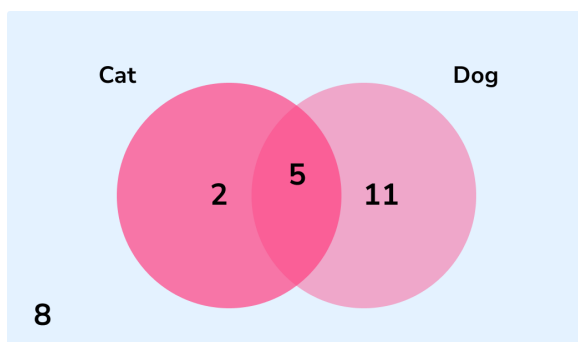
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4) What is the  $n^{\text{th}}$  term rule for the following sequence of numbers?

6, 10, 14, 18, 22, ...

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5) How many people did not own a cat or a dog, according to the Venn diagram?



## Week 11: Day 2 Answers

1) Write down the first five odd numbers. **1, 3, 5, 7, 9**

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2) Calculate the range of these values:

42, 36, 21, 55, 37, 41 **34**

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3) Round to the nearest 10:

a) 415 **420**

b) 9999 **10 000**

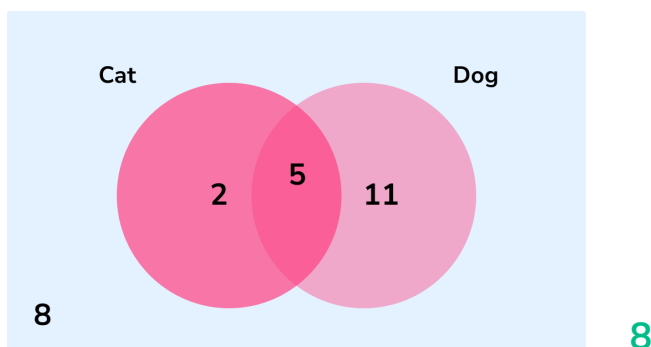
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4) What is the  $n^{\text{th}}$  term rule for the following sequence of numbers?

6, 10, 14, 18, 22, ...  **$4n + 2$**

---

5) How many people did not own a cat or a dog, according to the Venn diagram?



## Week 11: Day 3

1) Write down the first five square numbers.

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2) Determine the mode of this data:

2, 6, 2, 5, 7, 3, 2, 3

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3) Round to one decimal place:

a) 8.6845

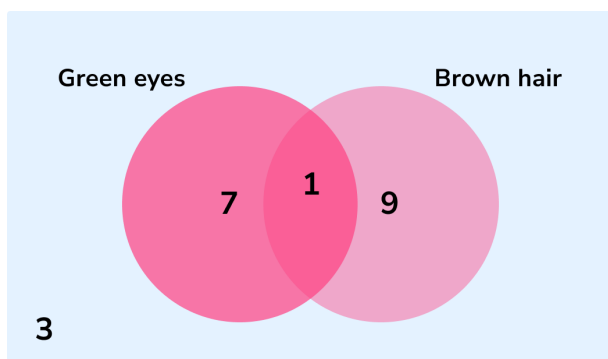
b) 17.551

---

4) The first number in a sequence is 1. The term to term rule is “double then add 1”. Write down the first five numbers in the sequence.

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5) How many people had green eyes or brown hair, according to the Venn diagram?



## Week 11: Day 3 Answers

1) Write down the first five square numbers. **1, 4, 9, 16, 25**

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2) Determine the mode of this data:

2, 6, 2, 5, 7, 3, 2, 3 **2**

---

3) Round to one decimal place:

a) 8.6845 **8.7**

b) 17.551 **17.6**

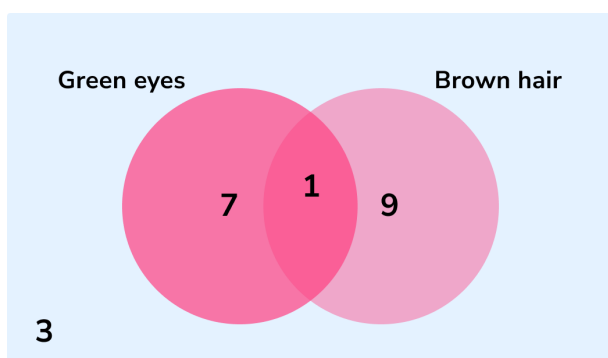
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4) The first number in a sequence is 1. The term to term rule is “double then add 1”. Write down the first five numbers in the sequence.

**1, 3, 7, 15, 31**

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5) How many people had green eyes or brown hair, according to the Venn diagram? **17**



## Week 11: Day 4

1) Write down the first five cube numbers.

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2) Work out the median of these values:

13, 17, 11, 22, 10

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3) Round to 2 significant figures:

a) 35753

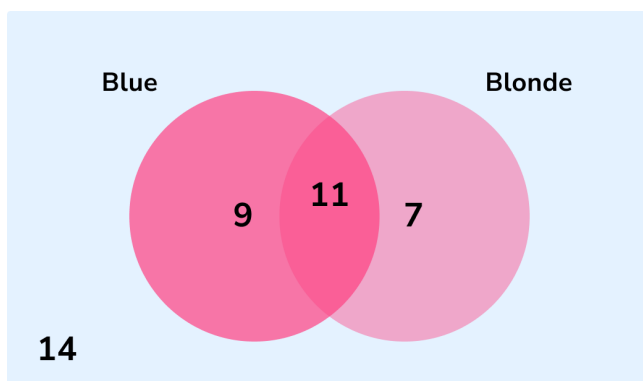
b) 2.71828

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4) A sequence has  $n^{\text{th}}$  term  $3n-1$ . Jimi says that 22 is in the sequence. Is Jimi correct?

---

5) How many people did not have blue eyes and blonde hair, according to this Venn diagram?



## Week 11: Day 4 Answers

1) Write down the first five cube numbers. **1, 8, 27, 64, 125**

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2) Work out the median of these values:

**13, 17, 11, 22, 10** **13**

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3) Round to 2 significant figures:

a) 35753 **36 000**

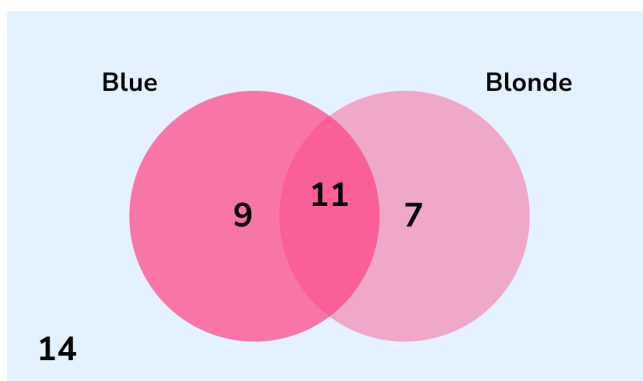
b) 2.71828 **2.7**

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4) A sequence has  $n^{\text{th}}$  term  $3n-1$ . Jimi says that 22 is in the sequence. Is Jimi correct? **NO, since  $3n - 1 = 22$  does not produce an integer solution**

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5) How many people did not have blue eyes and blonde hair, according to this Venn diagram? **30**



## Week 11: Day 5

1) Write down the first five prime numbers.

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2) Work out the median of these values:

32, 31, 42, 34, 36, 33

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3) Estimate:

a)  $3.17 \times 7.84$

b)  $48.72 \div 5.223$

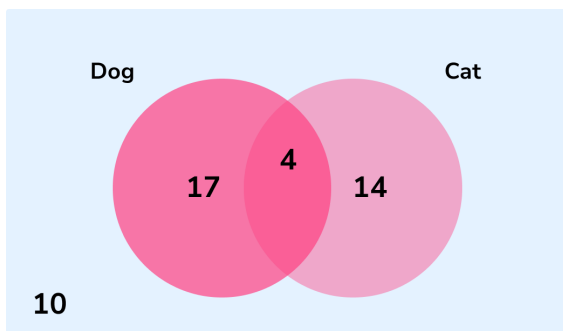
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4) A sequence starts 1, 2, 4, ...

There is more than one way to continue this sequence. Find the next two terms of the sequence and explain your rule.

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5) This Venn diagram represents a survey of pet ownership. How many people took part in the survey?



## Week 11: Day 5 Answers

1) Write down the first five prime numbers. **2, 3, 5, 7, 11**

2) Work out the median of these values:

32, 31, 42, 34, 36, 33 **33.5**

3) Estimate:

a)  $3.17 \times 7.84$  **24**

b)  $48.72 \div 5.223$  **10**

4) A sequence starts 1, 2, 4, ...

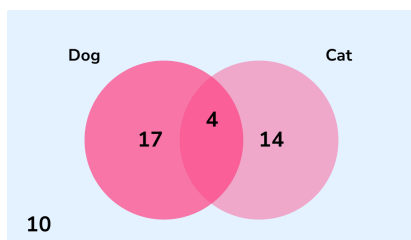
There is more than one way to continue this sequence. Find the next two terms of the sequence and explain your rule.

**Possibilities include:**

**8, 16** (doubling)

**7, 11** (adding sequential integers)

5) This Venn diagram represents a survey of pet ownership. How many people took part in the survey?



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