

Week 8

This week in a nutshell:

All topics this week have been seen before in various formats. Question 5 specifically addresses using a calculator, which is a skill in itself and of ever growing importance. For some students, you may ask them to estimate the answer first and then use a calculator, as this teaches the understanding of what a reasonable answer should look like.

Question 1: Multiplicative reasoning

Question 2: BIDMAS

Question 3: Solving equations

Question 4: Probability

Question 5: Using a calculator

The questions aim to develop and deepen understanding over the week. Due to the necessity of the topics covered this week, there is an emphasis on the interchangeability of command words, and language flexibility. It may be worth taking some extra time this week to make sure your students are developing their mathematical literacy.

This week's ideas for class discussion include:

Question 1: **Multiplicative reasoning**

- ***reflect on previous learning***

Question 2: **BIDMAS**

- **Would maths work without BIDMAS?**

Question 3: **Solving equations**

- **How many solutions can an equation have?**

Question 4: **Probability**

- **What do you have to consider when calculating probability?**

Question 5: **Using a calculator**

- **Is using a calculator a skill, a method, or is a calculator a piece of equipment?**

Week 8: Day 1

1) How many minutes are in 3.5 hours?

2) Calculate:

$$4 + 7^2 =$$

3) Solve for x :

$$3x - 11 = 13$$

4) Given the letters for the word,

A L G E B R A

When choosing a letter at random what is the probability of selecting a consonant?

5) Use a calculator to work out

$$7.002 \times 3.7 \times \sqrt{300}$$

Give your answer rounded to the nearest integer.

Week 8: Day 1 Answers

1) How many minutes are in 3.5 hours? 210

2) Calculate:

$$4 + 7^2 = 4 + 49 \\ = 53$$

3) Solve for x :

$$3x - 11 = 13 \\ x = 8$$

4) Given the letters for the word,

A L G E B R A

When choosing a letter at random what is the probability of selecting a consonant?

$$\frac{4}{7}$$

5) Use a calculator to work out

$$7.002 \times 3.7 \times \sqrt{300}$$

Give your answer rounded to the nearest integer.

449

Week 8: Day 2

1) How many weeks are equivalent to 126 days?

2) Calculate:

$$19 - 5 \times 3 =$$

3) Solve for x :

$$5x + 4 = 22 + 3x$$

4) Given the letters for the word,

P A R A L L E L

When choosing a letter at random what is the probability of selecting a character that has reflection symmetry?

5) Use a calculator to work out

$$16.4 \div 9.9 \times 5.63^2$$

Give your answer rounded to one decimal place.

Week 8: Day 2 Answers

- 1) How many weeks are equivalent to 126 days? 18

- 2) Calculate:

$$19 - 5 \times 3 = 19 - 15 \\ = 4$$

- 3) Solve for x :

$$5x + 4 = 22 + 3x \\ x = 9$$

- 4) Given the letters for the word,

P A R A L L E L

When choosing a letter at random what is the probability of selecting a character that has reflection symmetry?

$$\frac{3}{8}$$

- 5) Use a calculator to work out

$$16.4 \div 9.9 \times 5.63^2$$

Give your answer rounded to one decimal place.

$$52.5$$

Week 8: Day 3

1) How many seconds are in 18 minutes?

2) Calculate:

$$9^2 - 28 \div 2 =$$

3) Solve for x :

$$12 - 5x = 8$$

4) Given the letters for the word,

C I R C U M F E R E N C E

When choosing a letter at random what is the probability of selecting the letter C?

5) Use a calculator to work out

$$\sqrt{60} \times \sqrt{30}$$

Give your answer to the nearest integer.

Week 8: Day 3 Answers

1) How many seconds in 18 minutes? 1080

2) Calculate:

$$\begin{aligned} 9^2 - 28 \div 2 &= 81 - 28 \div 2 \\ &= 81 - 14 \\ &= 67 \end{aligned}$$

3) Solve for x :

$$\begin{aligned} 12 - 5x &= 8 \\ x &= \frac{4}{5} \text{ or } 0.8 \end{aligned}$$

4) Given the letters for the word,

C I R C U M F E R E N C E

When choosing a letter at random what is the probability of selecting the letter C?

$$\frac{3}{13}$$

5) Use a calculator to work out

$$\sqrt{60} \times \sqrt{30}$$

Give your answer to the nearest integer.

42

Week 8: Day 4

1) How many minutes are in half a day?

2) Calculate:

$$8 \div 4 + 8 \div 2 =$$

3) Solve for x :

$$15 - 2x = x + 9$$

4) Given the letters for the word,

T R A P E Z I U M

When choosing a letter at random what is the probability of selecting the letter Q?

5) Use a calculator to work out

$$5.8 \times 78 \div 99$$

Give your answer rounded to two significant figures.

Week 8: Day 4 Answers

1) How many minutes are in half a day? 720

2) Calculate:

$$\begin{aligned} 8 \div 4 + 8 \div 2 &= 2 + 4 \\ &= 6 \end{aligned}$$

3) Solve for x :

$$\begin{aligned} 15 - 2x &= x + 9 \\ x &= 2 \end{aligned}$$

4) Given the letters for the word,

T R A P E Z I U M

When choosing a letter at random what is the probability of selecting the letter Q?

0

5) Use a calculator to work out

$$5.8 \times 78 \div 99$$

Give your answer rounded to two significant figures.

4.6

Week 8: Day 5

1) How many days are in three years, assuming no year is a leap year?

2) Calculate:

$$5 \times (3^2 - 5) =$$

3) Solve for x :

$$4(2x - 7) = -24$$

4) Given the letters for the word,

PROBABILITY

When choosing a letter at random what is the probability of selecting a vowel?

5) Use a calculator to work out

$$\sqrt{(20.3 + 37.9)}$$

Give your answer rounded to two decimal places.

Week 8: Day 5 Answers

1) How many days are in three years, assuming no year is a leap year? 1095

2) Calculate:

$$\begin{aligned} 5 \times (3^2 - 5) &= 5 \times (9 - 5) \\ &= 5 \times 4 \\ &= 20 \end{aligned}$$

3) Solve for x :

$$\begin{aligned} 4(2x - 7) &= -24 \\ x &= \frac{1}{2} \text{ or } 0.5 \end{aligned}$$

4) Given the letters for the word,

PROBABILITY

When choosing a letter at random what is the probability of selecting a vowel?

$$\frac{4}{11}$$

5) Use a calculator to work out

$$\sqrt{(20.3 + 37.9)}$$

Give your answer rounded to two decimal places.

7.63

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