

## Week 7

### This week in a nutshell:

This week students will be working with fractions in Q1, Q2 and Q3. Use this as an opportunity to discuss links between calculation methods and to consolidate the overall concept of fractions. A review of collecting like terms may be needed to support work on Q4. A game of snap can be created as a fun way to practice reading tally notation for Q5. Make a deck with numbers written in digits on some cards and in tally notation on others.

**Question 1:** Expressing a percentage

**Question 2:** Ordering numbers

**Question 3:** Fraction of an amount

**Question 4:** Expressions for perimeter

**Question 5:** Tally notation

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: **Expressing a percentage**

- **Simon scored 35 out of 50 on a science test, 27 out of 36 on a maths test and 16 out of 20 on a spelling test. Compare his performance in each subject.**

Question 2: **Ordering numbers**

- **Put these fractions in ascending order;  $\frac{3}{8}$ ,  $\frac{7}{20}$ ,  $\frac{9}{25}$ . Discuss methods you could employ to answer this question. Do you think there is one method which always works best for this type of question?**

Question 3: **Fraction of an amount**

- **The teacher says "What is  $\frac{5}{8}$  of 20?". Simon calculates;  $20 \div 8 = 2.5$ , then  $2.5 \times 5 = 12.5$ . Simone calculates;  $5 \times 20 = 100$ , then  $100 \div 8 = 12.5$ . Discuss the merits of these two methods.**

Question 4: **Expressions for perimeter**

- **A square has sides of length  $3x - 1$ . Simon says the perimeter of the square must be 4 times this expression so he writes,  $4(3x - 1)$ . Amira says he is wrong because for perimeter you must add up all the sides, so she writes,  $3x - 1 + 3x - 1 + 3x - 1 + 3x - 1 = 12x - 4$ . Discuss Simon and Amir's answers.**

Question 5: **Tally notation**

- **Do you think tally notation is helpful? Can you give any examples of when tally notation is used?**

## Week 7: Day 1

1) Express 45 out of 100 as a percentage.

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2) Write these numbers in ascending order:

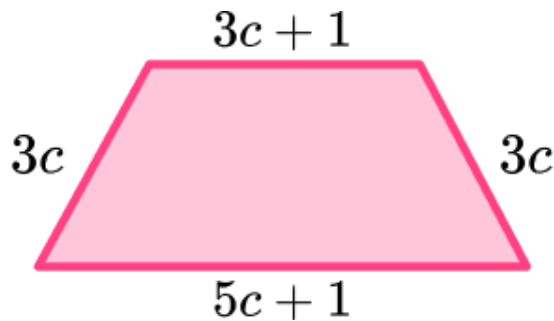
7, -3, 2, -5, 1, 0

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3 What is  $\frac{1}{4}$  of 80?

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4) Write an expression for the perimeter of this trapezium.



5) What number is represented by this tally?



## Week 7: Day 1 Answers

1) Express 45 out of 100 as a percentage. 45%

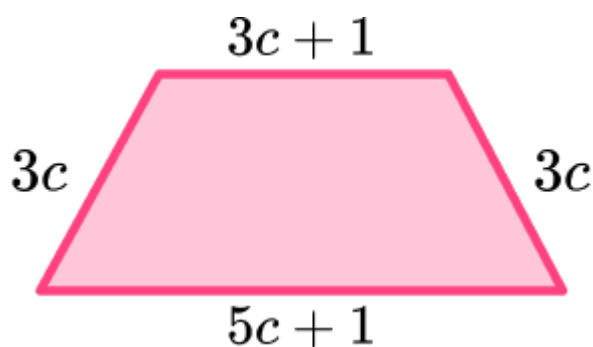
2) Write these numbers in ascending order:

7, -3, 2, -5, 1, 0  
-5, -3, 0, 1, 2, 7

3) What is  $\frac{1}{4}$  of 80? 20

4) Write an expression for the perimeter of this trapezium.

$14c + 2$



5) What number is represented by this tally? 5



## Week 7: Day 2

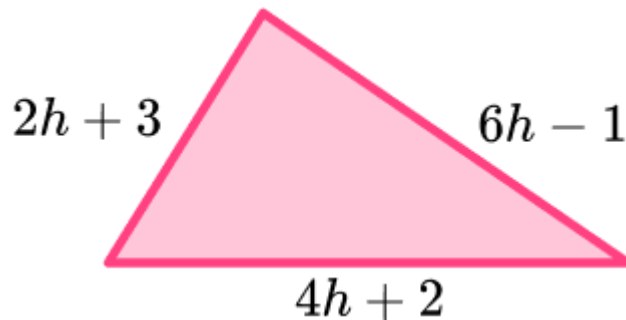
1) Express 80 out of 200 as a percentage.

2) Write these numbers in descending order:

$$\frac{3}{5}, 5, 3.5, 5.3, \frac{5}{3}$$

3) What is  $\frac{1}{8}$  of 48?

4) Write an expression for the perimeter of this triangle.



5) What number is represented by this tally?



## Week 7: Day 2 Answers

- 1) Express 80 out of 200 as a percentage. 40%

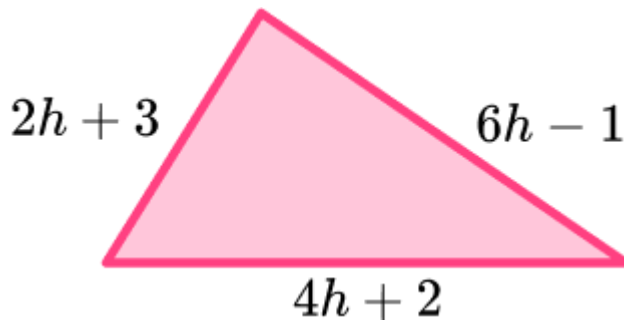
- 2) Write these numbers in descending order:

$\frac{3}{5}, 5, 3.5, 5.3, \frac{5}{3}$

$5.3, 5, 3.5, \frac{5}{3}, \frac{3}{5}$

- 3) What is  $\frac{1}{8}$  of 48? 6

- 4) Write an expression for the perimeter of this triangle.  $12h + 4$



- 5) What number is represented by this tally? 10



## Week 7: Day 3

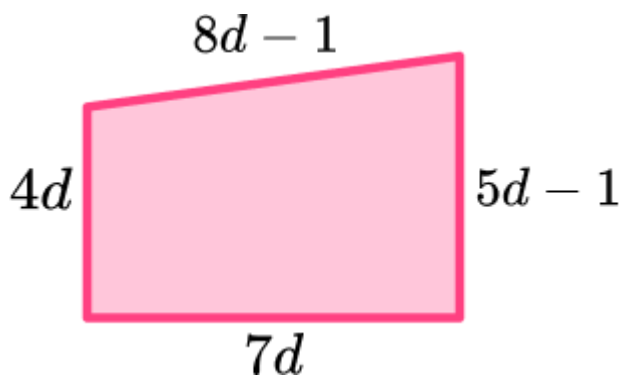
1) Express 27 out of 50 as a percentage.

2) Write these numbers in ascending order:

$$\frac{2}{5}, \frac{3}{8}, \frac{1}{3}, \frac{1}{2}$$

3) What is  $\frac{1}{5}$  of 65?

4) Write an expression for the perimeter of this shape.



5) What number is represented by this tally?



## Week 7: Day 3 Answers

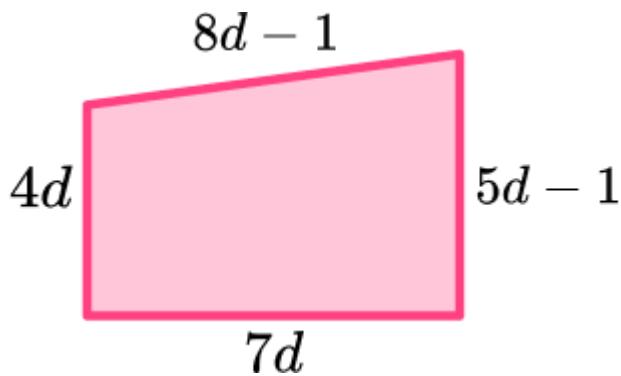
1) Express 27 out of 50 as a percentage. 54%

2) Write these numbers in ascending order:

$$\frac{2}{5}, \frac{3}{8}, \frac{1}{3}, \frac{1}{2} \quad \frac{1}{3}, \frac{3}{8}, \frac{2}{5}, \frac{1}{2}$$

3) What is  $\frac{1}{5}$  of 65? 13

4) Write an expression for the perimeter of this shape.  $24d - 2$



5) What number is represented by this tally? 7



## Week 7: Day 4

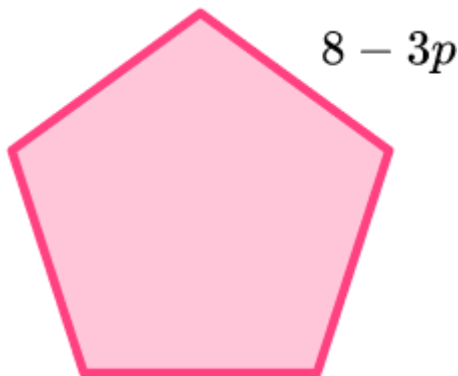
1) Express 30 out of 40 as a percentage.

2) Write these numbers in descending order:

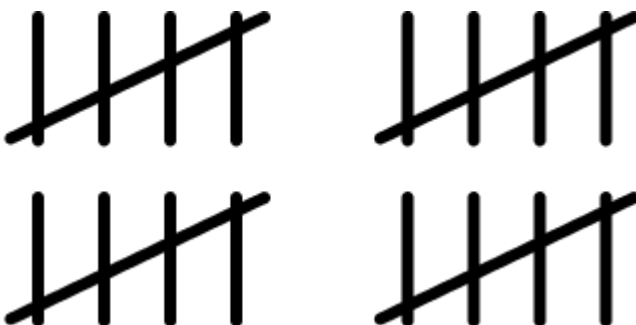
3.04, 4.3, 4.03, 3.4, 3.404

3) What is  $\frac{2}{3}$  of 36?

4) Write an expression for the perimeter of this regular pentagon.



5) What number is represented by this tally?





## Week 7: Day 4 Answers

- 1) Express 30 out of 40 as a percentage. 75%

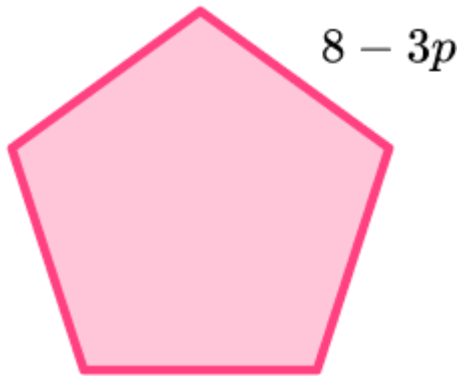
- 2) Write these numbers in descending order:

3.04, 4.3, 4.03, 3.4, 3.404

4.3, 4.03, 3.404, 3.4, 3.04

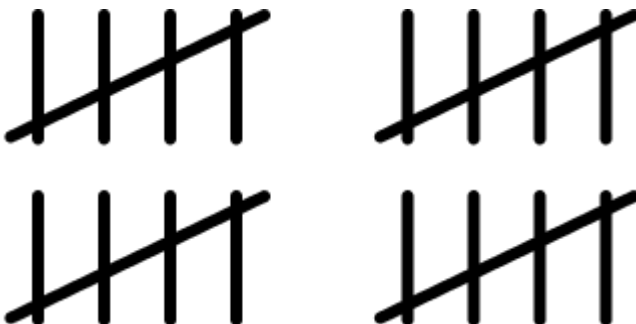
- 3) What is  $\frac{2}{3}$  of 36? 24

- 4) Write an expression for the perimeter of this regular pentagon.



$5(8 - 3p)$  or  $40 - 15p$

- 5) What number is represented by this tally? 20



## Week 7: Day 5

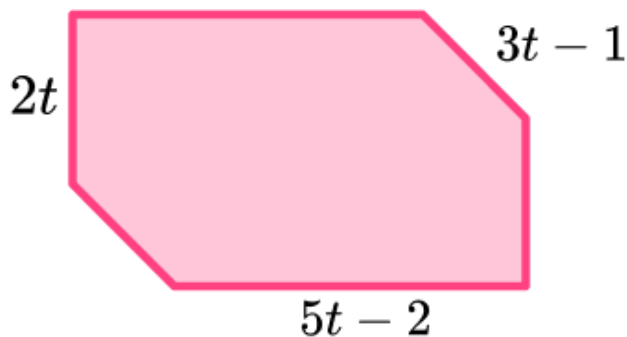
1) Express 17 out of 25 as a percentage.

2) Write these numbers in ascending order:

0.101, 0.011, 0.001, 0.01

3) What is  $\frac{4}{5}$  of 35?

4) Write an expression for the perimeter of this irregular hexagon, which has rotational symmetry order 2.



5) What number is represented by this tally?



## Week 7: Day 5 Answers

1) Express 17 out of 25 as a percentage. **68%**

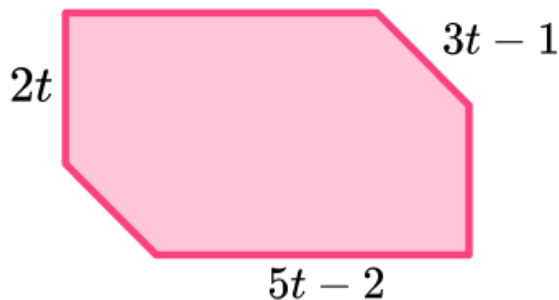
2) Write these numbers in ascending order:

0.101, 0.011, 0.001, 0.01

**0.001, 0.01, 0.011, 0.101**

3) What is  $\frac{4}{5}$  of 35? **28**

4) Write an expression for the perimeter of this irregular hexagon, which has rotational symmetry order 2.  **$2(10t - 3)$  or  $20t - 6$**



5) What number is represented by this tally? **13**



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