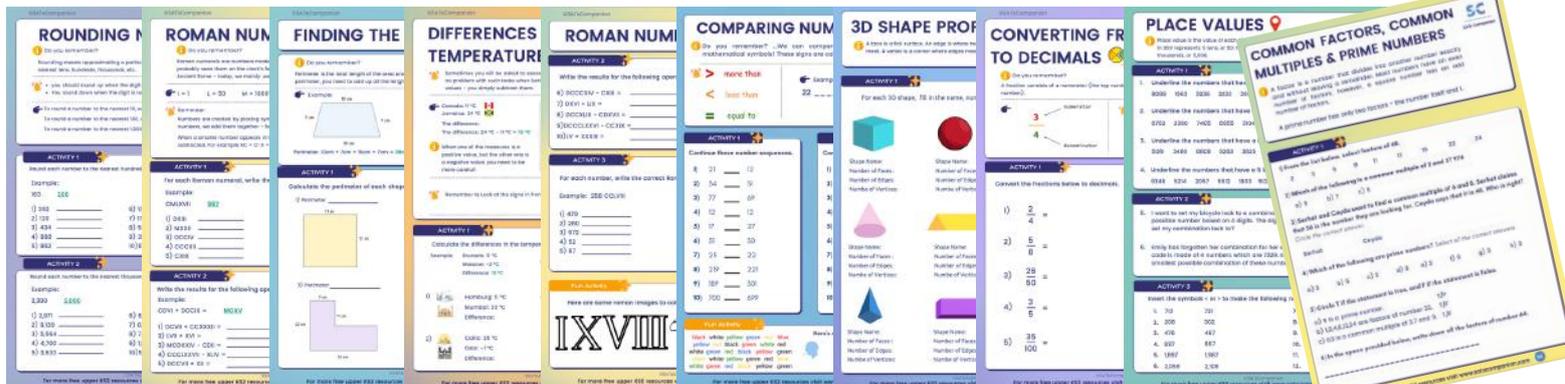


MATHS CATCH UP 2021 REVISION PACK

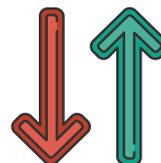
KS2 Maths Topics
Differentiated Worksheets
Tips and Examples
Fun Bonus Activities
Answers Included



ROUNDING NUMBERS

i Do you remember?

Rounding means approximating a particular number to the nearest tens, hundreds, thousands, etc.



- You should round up when the digit is 5 or more
- You round down when the digit is less than 5



To round a number to the nearest 10, we need to look at the ones digit.

To round a number to the nearest 100, we need to look at the tens digit.

To round a number to the nearest 1,000, we need to look at the hundreds digit.

ACTIVITY 1



Round each number to the nearest hundred.

Example:

163 200

1) 392 _____

6) 174 _____

2) 120 _____

7) 874 _____

3) 434 _____

8) 544 _____

4) 998 _____

9) 354 _____

5) 862 _____

10) 671 _____

ACTIVITY 2



Round each number to the nearest thousand.

Example:

2,399 2,000

1) 2,971 _____

6) 6,241 _____

2) 9,139 _____

7) 8,442 _____

3) 5,564 _____

8) 7,322 _____

4) 4,700 _____

9) 1,801 _____

5) 3,633 _____

10) 5,399 _____

ROMAN NUMERALS



i Do you remember?

Roman numerals are numbers made of letters such as I, V, X, L, C, D and M. You have probably seen them on the clock's face or in some dates formats. They were used in Ancient Rome - today, we mainly use Arabic numerals.

👉 I = 1 L = 50 M = 1000 V = 5 C = 100 X = 10 D = 500

🔔 **Reminder:**

Numbers are created by placing symbols in various combinations. To read the numbers, we add them together - for example, LVI = L+V+I = 50+5+1 = 66

When a smaller number appears in front of the larger number, it needs to be subtracted. For example XC = C-X = 100-10 = 90

ACTIVITY 1

For each Roman numeral, write the correct number.

Example:

CMLXVII 967

1) DXIII _____

2) MXXII _____

3) DCCIV _____

4) CCCXII _____

5) CXIX _____

6) DCCCXCII _____

7) CCXLVIII _____

8) DLXI _____

9) CMXI _____

10) MCCXXXIV _____

ACTIVITY 2

Write the results for the following operations. Use Roman numerals.

Example:

CDVI + DCCIX = MCXV

1) DCVII + CCXXXII = _____

2) LVII + XVI = _____

3) MCDXXIV - CDII = _____

4) CCCLXXVII - XLIV = _____

5) DCCVII + XII = _____

ROMAN NUMERALS



ACTIVITY 3

Write the results for the following operations. Use Roman numerals.

6) DCCCXIV - CXIII = _____

7) DXVI + LIX = _____

8) DCCXLIX - CDXVII = _____

9) DCCCLXXVI - CCXIX = _____

10) LV - XXXIII = _____

ACTIVITY 4

For each number, write the correct Roman numeral.

Example: 258 CCLVIII

1) 479 _____

2) 280 _____

3) 972 _____

4) 52 _____

5) 87 _____

6) 121 _____

7) 299 _____

8) 1023 _____

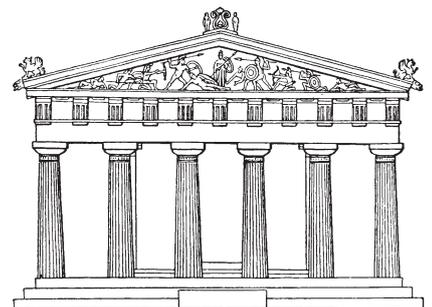
9) 667 _____

10) 543 _____

Fun Activity

Here are some Roman images to colour in! Use any colours of your choice.

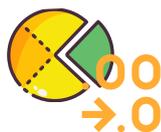
IXV VIII



CONVERTING FRACTIONS TO DECIMALS

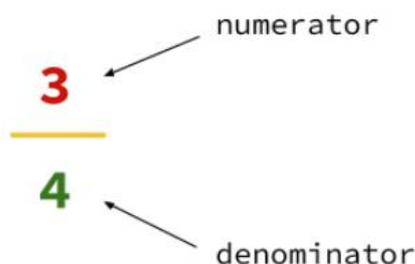


SATs Companion



i Do you remember?

A fraction consists of a numerator (the top number) and denominator (the bottom number).



Converting fractions to decimals is very easy - all you need to do is to divide a numerator by denominator!

$$\frac{3}{4} = 3 \div 4 = 0.75$$

ACTIVITY 1



Convert the fractions below to decimals.

Example: $\frac{7}{10} = 0.7$

1) $\frac{2}{4} =$

6) $\frac{80}{200} =$

2) $\frac{5}{8} =$

7) $\frac{75}{300} =$

3) $\frac{26}{50} =$

8) $\frac{45}{450} =$

4) $\frac{3}{5} =$

9) $\frac{12}{96} =$

5) $\frac{35}{100} =$

10) $\frac{25}{125} =$

DIFFERENCES IN TEMPERATURES



SATs Companion



Sometimes you will be asked to assess the differences in temperatures. There is no problem with such tasks when both of the temperature measures are positive values - you simply subtract them.



Canada: 11 °C 
Jamaica: 24 °C 

The difference:

The difference: $24\text{ °C} - 11\text{ °C} = 13\text{ °C}$



Iceland: -3 °C 
India: 31 °C 

The difference:

$31\text{ °C} - (-3\text{ °C}) = 31\text{ °C} + 3\text{ °C} = 34\text{ °C}$



When one of the measures is a positive value, but the other one is a negative value, you need to be more careful!

ACTIVITY 1



Calculate the differences in the temperatures in the cities below.

Example: Brussels: 11 °C
Moscow: -2 °C
Difference: 13 °C

3)



Saint Petersburg: 9 °C

Seoul: 12 °C

Difference:

1)



Hamburg: 11 °C



Mumbai: 33 °C

Difference:

4)



Kathmandu: 7 °C

Quebec: -4 °C

Difference:

2)



Cairo: 26 °C



Oslo: -1 °C

Difference:

5)



Madrid: 24 °C

Edinburgh: -4 °C

Difference:

6)  Miami: 25 °C
 Vancouver: 3 °C
 Difference:

7)  Stockholm: -2 °C
 Casablanca: 27 °C
 Difference:

7)  Dakar: 35 °C
 Kabul: 0 °C
 Difference:

7)  Cape Town: 28°C
 Nuuk: -22 °C
 Difference:

6)  Melbourne: 24 °C
 Reykjavik: -7 °C
 Difference:

ACTIVITY 2

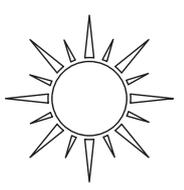
Put the temperatures below in the correct order, starting from the coolest.

☞ Example:
 -6°C, -19°C, 9°C, 0°C, -3°C, 5°C
 -19°C, -6°C, -3°C, 0°C, 5°C, 9°C

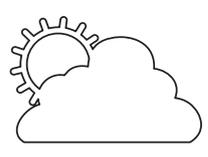
- | | |
|---------------------------------------|--|
| 1) 13°C, -32°C, 17°C, 2°C, -4°C, -9°C | 5) 5°C, 9°C, -12°C, 33°C, -35°C, -11°C |
| 2) 21°C, -14°C, 22°C, -23°C, 0°C, 3°C | 6) -31°C, 27°C, 5°C, -3°C, 0°C, 2°C |
| 3) -6°C, 7°C, 12°C, 3°C, -4°C, -12°C | 7) 11°C, 9°C, -10°C, 5°C, -4°C, 6°C |
| 4) 10°C, -4°C, -8°C, -1°C, 12°C, 4°C | |

Fun Activity

Using the weather mood meter below, colour in the mood you are in today.



Extremely Happy



Happy



Neutral



Sad



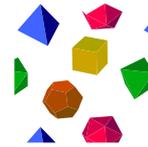
Angry

3D SHAPE PROPERTIES



SATs Companion

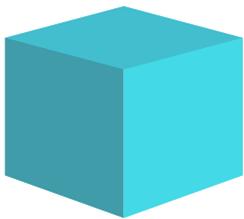
i A face is a flat surface. An edge is where two faces meet. A vertex is a corner where edges meet.



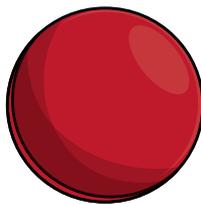
ACTIVITY 1



For each 3D shape, fill in the name, number of faces, edges and vertices..



Shape Name:
Number of Faces :
Number of Edges:
Numbe of Vertices:



Shape Name:
Number of Faces :
Number of Edges:
Numbe of Vertices:



Shape Name:
Number of Faces :
Number of Edges:
Numbe of Vertices:



Shape Name:
Number of Faces :
Number of Edges:
Numbe of Vertices:



Shape Name:
Number of Faces :
Number of Edges:
Numbe of Vertices:



Shape Name:
Number of Faces :
Number of Edges:
Numbe of Vertices:



Shape Name:
Number of Faces :
Number of Edges:
Numbe of Vertices:



Shape Name:
Number of Faces :
Number of Edges:
Numbe of Vertices:



Shape Name:
Number of Faces :
Number of Edges:
Numbe of Vertices:



PLACE VALUES



SATs Companion

- i** Place value is the value of each digit in a number. For example, the 5 in 350 represents 5 tens, or 50; however, the 5 in 5,006 represents 5 thousands, or 5,000.

ACTIVITY 1

1. Underline the numbers that have a 3 in the ones place.

8088 1963 3236 2233 3902 5123 2051 9734

2. Underline the numbers that have a 6 in the tens place.

6762 2360 7405 8955 3104 1965 1951 5614

3. Underline the numbers that have a 8 in the hundreds place.

5081 3480 8809 9263 3825 2845 7289 6635

4. Underline the numbers that have a 5 in the thousands place.

9346 5214 2057 5512 1803 5123 3151 1345

ACTIVITY 2

5. I want to set my bicycle lock to a combination which is the biggest possible number based on 4 digits. The digits are 1809. What should I set my combination lock to?



6. Emily has forgotten her combination for her secret diary. She knows the code is made of 4 numbers which are 7329. Emily thinks the code is the smallest possible combination of these numbers. What is the code?



ACTIVITY 3

Insert the symbols < or > to make the following number statements true.

- | | | | |
|----------|-------|-----------|-------|
| 1. 712 | 721 | 7. 3,254 | 3,154 |
| 2. 208 | 302 | 8. 4,785 | 4,986 |
| 3. 476 | 467 | 9. 5,506 | 5,589 |
| 4. 897 | 867 | 10. 6,783 | 6,649 |
| 5. 1,897 | 1,987 | 11. 7,329 | 8,843 |
| 6. 2,059 | 2,109 | 12. 9,459 | 9,894 |

ROUNDING



SATs Companion

- i** To round a number to the nearest **10**, we need to look at the **ones digit**.
 To round a number to the nearest **100**, we need to look at the **tens digit**.
 To round a number to the nearest **1,000**, we need to look at the **hundreds digit**.

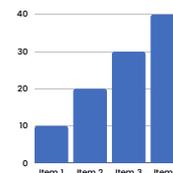
ACTIVITY 1

The table below shows how many people attended a football match in different cities of the UK in one month.



Cities	Attendees
Birmingham	2,876
Manchester	6,454
Cardiff	3,386
Liverpool	4,691
Glasgow	9,304
London	5,779

- Which team had the highest attendance?
- How many attendees were there in total for all the cities? Round this to the nearest 100.
- When Birmingham played, the opposing team's fans numbered 1,259. How many is this rounded to the nearest 10, 100 and 1,000?
- Glasgow had 9304 attendees in one month. How many attendees would they have in one year rounded to the nearest 10, 100 and 1000?
- Each ticket costs £5.00. How much would all the tickets for Cardiff cost rounded to the nearest 100?
- Round each city's attendance to the nearest thousand.
- Draw a bar chart representing the rounded figures in the table above.



Fun Activity

Can you solve this Maths riddle.....?

I am not an even number.
 I am between 60 and 64
 i am not 63



What am I?



COMMON FACTORS, COMMON MULTIPLES & PRIME NUMBERS



SATs Companion

i A factor is a number that divides into another number exactly and without leaving a remainder. Most numbers have an even number of factors; however, a square number has an odd number of factors.

A prime number has only two factors - the number itself and 1.

ACTIVITY 1



1) From the list below, select factors of 48.

2 3 5 8 11 12 15 22 24

2) Which of the following is a common multiple of 2 and 3?

a) 9 b) 7 c) 6

3) Serhat and Ceyda want to find a common multiple of 6 and 8. Serhat claims that 56 is the number they are looking for. Ceyda says that it is 48. Who is right?

Circle the correct answer.

Serhat

Ceyda

4) Which of the following are prime numbers? *Select all the correct answers.*

a) 25 b) 23 c) 29 d) 32

5) Circle T if the statement is true, and F if the statement is false.

a) 29 is a prime number. T/F

b) 1,2,4,6,12,24 are factors of number 32. T/F

c) 63 is a common multiple of 3,7 and 9. T/F

6) In the space provided below, write down all the factors of number 64.

COMMON FACTORS, COMMON MULTIPLES & PRIME NUMBERS

ACTIVITY 1



7) Which of the following numbers have 4, 7, 8 and 28 as factors?

Select all the correct answers.

- a) 54 b) 56 c) 84 d) 112 e) 128

8) Patrick is searching for the highest common factor of 24 and 36. Help Patrick by writing this number in the space provided below.

9) Match each number to its factors.

64

2, 7, 14, 49

72

6, 8, 9, 36

98

4, 8, 16, 32

10) What is the lowest common multiple of 5, 15 and 16?

Underline the correct answer.

126 180 200 220 240 280 315 330

FRACTIONS



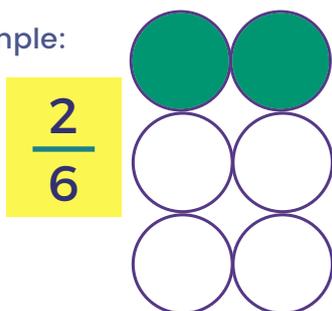
SATs Companion

i The top number of a fraction is known as the numerator and represents how many parts of the whole you have. The bottom number of the fraction is the denominator, which is the number of parts that would equal the whole.

ACTIVITY 1

Colour in parts of the blank shapes to match the fraction listed next to it. The first one is done for you.

Example:



$\frac{6}{10}$



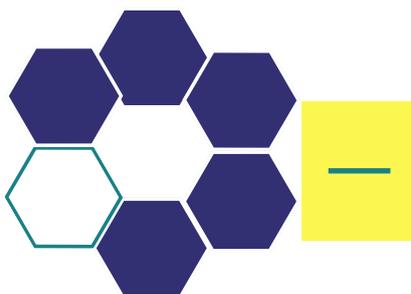
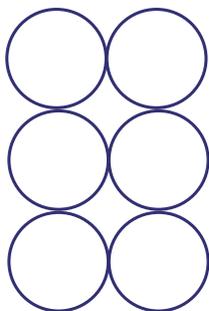
$\frac{2}{7}$



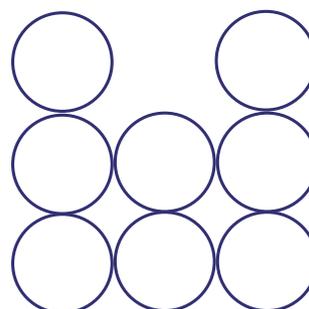
$\frac{2}{5}$



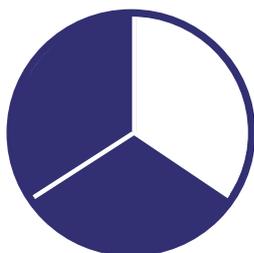
$\frac{3}{6}$



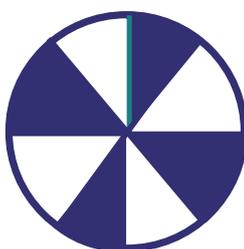
$\frac{4}{8}$



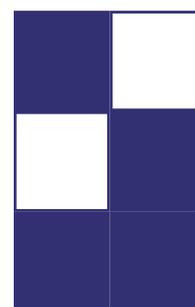
$\frac{\quad}{\quad}$



$\frac{\quad}{\quad}$



$\frac{\quad}{\quad}$



FRACTIONS AND DECIMALS



A Rhyme To Help You Remember

♪ "If adding or subtracting is your aim, the bottom numbers must be the same! ♪ "change the bottom using multiply or divide, but the same to the top must be applied, ♪ "and don't forget to simplify, before it's time to say goodbye"



SATs Companion

ACTIVITY 1

Match the decimal with its equivalent fraction.

- | | | |
|----|----------------|------|
| 1) | $\frac{1}{4}$ | 0.4 |
| 2) | $\frac{1}{2}$ | 0.75 |
| 3) | $\frac{3}{4}$ | 0.9 |
| 4) | $\frac{2}{10}$ | 0.5 |
| 5) | $\frac{4}{10}$ | 0.25 |
| 6) | $\frac{9}{10}$ | 0.2 |



ACTIVITY 2

Add the following fractions with the same denominator.

- | | | | |
|----|---------------------------------|----|---------------------------------|
| 1) | $\frac{2}{5} + \frac{1}{5} =$ | 5) | $\frac{4}{7} + \frac{1}{7} =$ |
| 2) | $\frac{1}{8} + \frac{4}{8} =$ | 6) | $\frac{3}{11} + \frac{6}{11} =$ |
| 3) | $\frac{6}{10} + \frac{2}{10} =$ | 7) | $\frac{1}{4} + \frac{1}{4} =$ |
| 4) | $\frac{4}{12} + \frac{2}{12} =$ | 8) | $\frac{2}{6} + \frac{2}{6} =$ |



ROUNDING

i To round a number to the nearest 10, look at the amount of ones. If this is 5 or more, round up. To round a number to the nearest 100, look at the tens digit. If the tens digit is 5 or more, round up.

To round a number to the nearest 1000, look at the hundreds digit. If the hundreds digit is 5 or more, round up.

ACTIVITY 1

1) Round the following numbers to the nearest 10.

32 →	14 →	85 →
77 →	73 →	99 →
16 →	25 →	37 →

ACTIVITY 2

2) Round the following numbers to the nearest 100.

432 →	546 →	654 →
510 →	889 →	138 →
964 →	149 →	972 →
305 →	222 →	349 →
983 →	652 →	266 →

ACTIVITY 3

3) Round the following numbers to the nearest 1000.

5,550 →	9,133 →	3,478 →
9,446 →	4,968 →	3,720 →
6,055 →	3,337 →	1,526 →

MULTIPLICATION



SATs Companion

1	2	3	4	5	6	7	8	9	0

Decode the emoji formulas and solve the calculations.



EXAMPLE: × = 24

3 × 8

ACTIVITY 1

1) × =

7) × =

2) × =

8) × =

3) × =

9) × =

4) × =

10) × =

5) × =

11) × =

6) × =

12) × =

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Fun Activity

Draw your favourite emojis here

NEGATIVE NUMBERS



SATS Companion

i To add and subtract numbers always begin counting from zero.

When adding positive numbers, count to the right.



When subtracting positive numbers, count to the left.

ACTIVITY 1



Continue these number sequences.

1) $-7, -6, -5, -4, -3, -2, -1, _, _, _$

2) $-6, -4, -2, _, _, _$

3) $-9, -6, -3, _, _, _$

4) $-11, -6, -1, _, _, _$

ACTIVITY 2



Answer the questions below.

- The temperature rises by 8 degrees from -3°C . What is the new temperature?
- The temperature is -4°C . How much must it rise to reach 6°C ?
- What is the difference in temperature between -6°C and 17°C ?
- The temperature in the South Pole rises 10 degrees from -55 degrees. What is the new temperature?
- At nine o'clock in the morning the temperature is 5°C . It falls by 9°C at night. What is the new temperature?

ACTIVITY 3



Put these numbers in ascending order.

1) $1, 3, -3, -5, -7$

2) $-8, -3, 9, -7, 4$

3) $-11, 3, 7, -4, -8$

4) $8, -5, 15, -9, -12$

ACTIVITY 4



Solve these problems.

1) $-14 - 2 =$

2) $-2 - 1 =$

3) $-11 + 8 =$

4) $-8 + 3 =$

COMPARING NUMBERS



SATs Companion

i Do you remember?

We can compare different numbers using mathematical symbols! These signs are called comparison symbols.

 **>** more than

< less than

= equal to

 Example:

22 34 22 **<** 34

ACTIVITY 1

Compare the following numbers. Use comparison symbols.

- 1) 21 12
- 2) 34 51
- 3) 77 69
- 4) 12 12
- 5) 17 27
- 6) 31 30
- 7) 25 22
- 8) 219 221
- 9) 189 301
- 10) 700 699

ACTIVITY 2

Look at the calculations below. Compare their results.

- 1) $31 + 27$ $14 + 42$
- 2) $22 + 49$ $63 + 8$
- 3) $98 - 36$ $82 - 24$
- 4) $47 + 31$ $21 + 59$
- 5) 2×12 3×7
- 6) 4×7 6×6
- 7) 5×5 $50 \div 2$
- 8) 7×11 12×6
- 9) $124 - 93$ $135 - 97$
- 10) $45 \div 5$ $81 \div 9$

Fun Activity

black white yellow green red blue
 yellow red black green white red
 white green red black yellow green
 black white yellow green red blue
 white green red black yellow green



Here's a fun activity to try.... Say the colour of each word.
(Don't read the word)

Answer Sheet 1 of 6

ROUNDING NUMBERS

Activity 1

1) 392 400

2) 120 100

3) 434 400

4) 998 1000

5) 862 900

6) 174 200

7) 874 900

8) 544 500

9) 354 400

10) 671 700

Activity 2

1) 2,971 3000

2) 9,139 9000

3) 5,564 6000

4) 4,700 5000

5) 3,633 4000

6) 6,241 6000

7) 8,442 8000

8) 7,322 7000

9) 1,801 2000

10) 5,399 5000

ROMAN NUMERALS

Activity 1

1) DXIII 513

2) MXXII 1022

3) DCCIV 704

4) CCCXII 312

5) CXIX 119

6) DCCCXCII 892

7) CCXLVIII 248

8) DLXI 561

9) CMXI 911

10) MCCXXXIV 1234

Activity 2

1) DCVII + CCXXXII = 839

2) LVII + XVI = 73

3) MCDXXIV - CDII = 1022

4) CCCLXXVII - XLIV = 333

5) DCCVII + XII = 719

6) DCCCXIV - CXIII = 701

7) DXVI + LIX = 575

8) DCCXLIX - CDXVII = 332

9) DCCCLXXVI - CCXIX = 657

10) LV - XXXIII = 22

Answer Sheet 2 of 6

Activity 3

- 1) 479 CDLXXIX
 2) 280 CCLXXX
 3) 972 CMLXXII
 4) 52 LII
 5) 87 LXXXVII

- 6) 121 CXXI
 7) 299 CCXCIX
 8) 1023 MXXIII
 9) 667 DCLXVII
 10) 543 DXLIII

CONVERTING FRACTIONS TO DECIMALS

Activity 1

- 1) 0.5 6) 0.4
 2) 0.625 7) 0.25
 3) 0.52 8) 0.1
 4) 0.6 9) 0.125
 5) 0.35 10) 0.2

DIFFERENCES IN TEMPERATURES

Activity 1

- 1) 22°C 6) 22°C
 2) 27°C 7) 35°C
 3) 3°C 8) 31°C
 4) 11 °C 9) 29°C
 5) 28 °C 10) 50°C

Activity 2

- 1) -32°C, -9°C, -4°C, 2°C, 13°C, 17°C
 2) -23°C, -14°C, 0°C, 3°C, 21°C, 22°C
 3) -12°C, -6°C, -4°C, 3°C, 7°C, 12°C
 4) -8°C, -4°C, -1°C, 4°C, 10°C, 12°C
 5) -35°C, -12°C, -11°C, 5°C, 9°C, 33°C
 6) -31°C, -3°C, 0°C, 2°C, 5°C, 27°C
 7) -10°C, -4°C, 5°C, 6°C, 9°C, 11°C

Answer Sheet 3 of 6

3D SHAPE PROPERTIES

Activity 1

						
Cube 6 Faces 12 Edges 8 Vertices	Sphere 1 Faces 0 Edges 0 Vertices	Cylinder 3 Faces 2 Edges 0 Vertices	Cone 2 Faces 1 Edges 1 Vertex	Triangular Prism 5 Faces 9 Edges 6 Vertices	Hexagonal Prism 8 Faces 18 Edges 12 Vertices	Square-based Pyramid 5 Faces 8 Edges 5 Vertices
						
Cuboid 6 Faces 12 Edges 8 Vertices	Triangular-based Pyramid 4 Faces 6 Edges 4 Vertices					

Place Values

Activity 1

- 1963 2233 5123
- 6762 2360 1965
- 8809 3825 2845
- 5214 5512 5123

Activity 2

- 9810
- 2379

Activity 2

- | | |
|----------------|-----------------|
| 1. 712 < 721 | 7. 3254 > 3154 |
| 2. 208 < 302 | 8. 4785 < 4986 |
| 3. 476 > 467 | 9. 5506 < 5589 |
| 4. 897 > 867 | 10. 6783 > 6649 |
| 5. 1897 < 1987 | 11. 7329 < 8843 |
| 6. 2059 < 2109 | 12. 9459 < 9894 |

Rounding

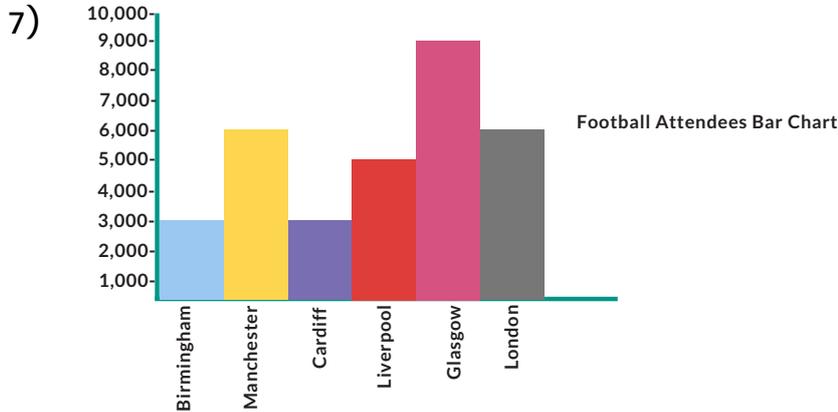
Activity 1

Cities	Attendees	Attendees Rounded
Birmingham	2876	3,000
Manchester	6454	6,000
Cardiff	3386	3,000
Liverpool	4691	5,000
Glasgow	9304	9,000
London	5779	6,000



Answer Sheet 4 of 6

- 1) Glasgow
- 2) 32,500
- 3) Nearest 10 = 1,260, Nearest 100 = 1,300, Nearest 1000 = 1,000
- 4) $9304 \times 12 = 111,648$ / Nearest 10 = 111,650, Nearest 100 = 111,600, Nearest 1000 = 112,000
- 5) $\pounds 5.00 \times 3386 = 169,30$ / Nearest 10 = $\pounds 16,630$
6. See chart.



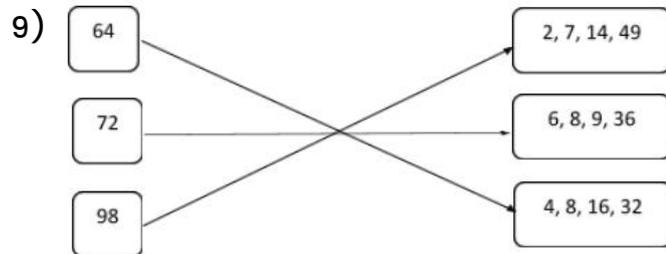
Common Factors, Common Multiples & Prime Numbers

Activity 1

- 1) 2, 3, 8, 12, 24
- 2) c
- 3) Ceyda
- 4) b,c
- 5) a) F b) F c) T
- 6) 1, 2, 4, 8, 16, 32, 64

7) b, d

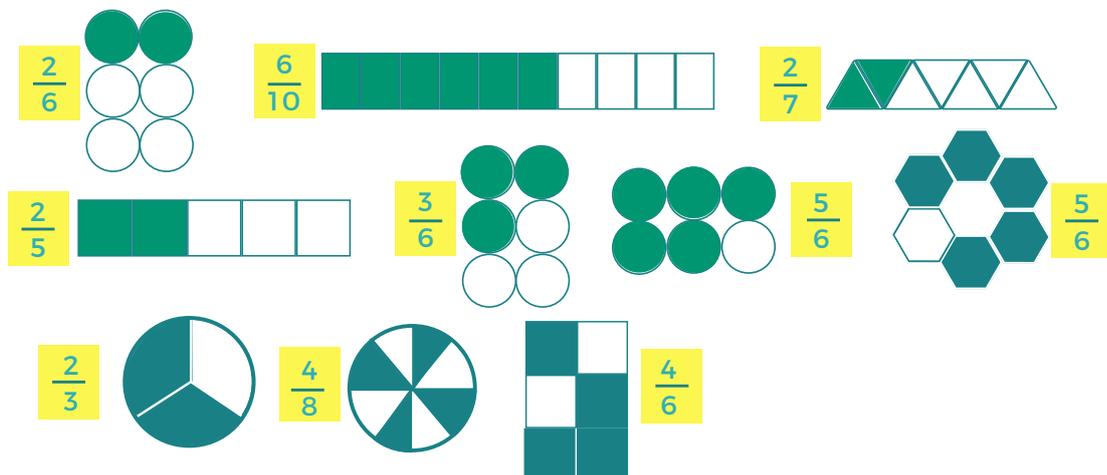
8) 12



10) 240

Fractions

Activity 1





Comparing Numbers

Activity 1

- | | |
|--------------|-----------------|
| 1) $21 > 12$ | 6) $31 > 30$ |
| 2) $34 < 51$ | 7) $25 > 22$ |
| 3) $77 > 69$ | 8) $219 < 221$ |
| 4) $12 = 12$ | 9) $189 < 301$ |
| 5) $17 < 27$ | 10) $700 > 699$ |

Activity 1

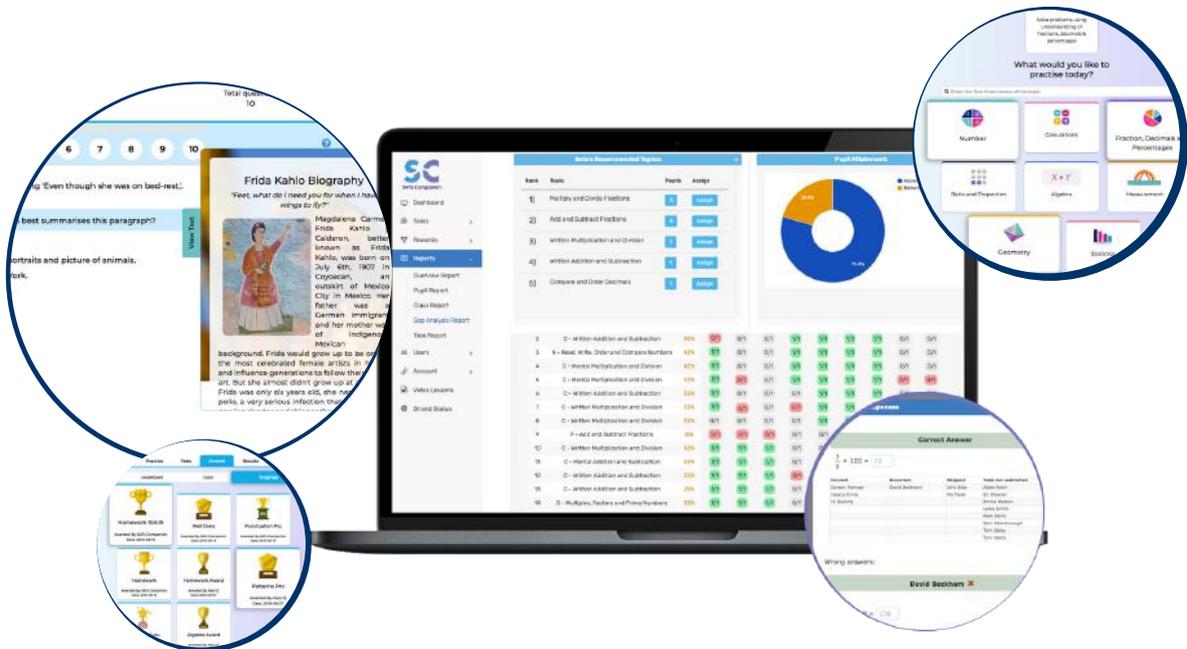
- | |
|--------------------------------|
| 1) $31 + 27 > 14 + 42$ |
| 2) $22 + 49 = 63 + 8$ |
| 3) $98 - 36 > 82 - 24$ |
| 4) $47 + 31 < 21 + 59$ |
| 5) $2 \times 12 > 3 \times 7$ |
| 6) $4 \times 7 < 6 \times 6$ |
| 7) $5 \times 5 = 50 \div 2$ |
| 8) $7 \times 11 > 12 \times 6$ |
| 9) $124 - 93 < 135 - 97$ |
| 10) $45 \div 5 = 81 \div 9$ |

End of Answers



The All-in-one Catch Up and Intervention Tool used within classrooms and remotely.

Year 5 and Year 6 | Maths, SPaG & Reading



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