Fractions:

Basic Skills:

Section 1: Adding and Subtracting

1. $\frac{1}{3} + \frac{1}{3}$

2. $\frac{3}{7} + \frac{2}{7}$

3. $\frac{3}{7} + \frac{2}{5}$

4. $\frac{2}{7} + \frac{1}{9}$

5. $\frac{4}{5} + \frac{3}{4}$

6. $\frac{1}{4} - \frac{1}{6}$

7. $\frac{3}{4} - \frac{1}{3}$

8. $\frac{7}{9} - \frac{1}{8}$

9. $1\frac{2}{3} + 2\frac{1}{2}$

10. $2\frac{1}{2} + 1\frac{4}{5}$

11. $4\frac{2}{3} - 1\frac{1}{3}$

12. $3\frac{1}{5} - 1\frac{2}{3}$

13. $5\frac{1}{2} + 2\frac{4}{5}$

14. $7\frac{4}{9} - 4\frac{3}{7}$

15. $11\frac{9}{11} + 1\frac{2}{3}$

16. $10\frac{1}{7} - 6\frac{5}{6}$

Section 2: Multiplying and Dividing

1. $\frac{1}{3} \times \frac{1}{5}$

2. $\frac{3}{4} \times \frac{2}{7}$

3. $\frac{1}{3} \div \frac{2}{5}$

4. $\frac{1}{2} \div \frac{1}{3}$

5. $\frac{6}{7} \times \frac{3}{8}$

6. $\frac{12}{17} \div \frac{4}{5}$

7. $\frac{9}{11} \times \frac{1}{12}$

8. $\frac{11}{32} \div \frac{1}{8}$

9. $1\frac{2}{3} \times 2\frac{1}{2}$

10. $2\frac{3}{5} \times 4\frac{4}{7}$

11. $3\frac{5}{7} \div 2\frac{4}{5}$

12. $1\frac{1}{5} \div 1\frac{1}{3}$

13. $9\frac{2}{3} \times 3\frac{1}{5}$

14. $3\frac{1}{9} \div 1\frac{3}{4}$

15. $11\frac{1}{2} \times 5\frac{2}{5}$

16. $6\frac{1}{5} \div 2\frac{5}{6}$

Context Questions:

1. A gardener is putting a fence around the edge of his flower patch. His garden is rectangular and has a width of $\frac{2}{3}$ m and a length of $1\frac{1}{2}$ m. Calculate how the length of the fence.

2. A runner is in a race that is 12km long. If he has run $6\frac{1}{9}$ km so far, exactly how far has he got left?

3. There are two jugs of water. One jug contains $2\frac{3}{4}$ L the other contains $3\frac{1}{5}$ L. A group of people drink $4\frac{1}{5}$L of it, exactly how much water is left afterwards?

4. A rectangular sheet of metal is being used for welding. The sheet is $2\frac{1}{3}$m long and $1\frac{2}{7}$m wide. What is the exact area of this sheet of metal?

5. A metal bar is $7\frac{2}{5}$ m long. It is cut into as many pieces each exactly $\frac{3}{4}$m long. How many full pieces will you be able to make the metal bar?

6. It takes a runner $3\frac{2}{3}$ minutes to run a lap of the course. How long would it take for her to run $5\frac{1}{2}$ laps?

7. A cuboid has the following dimensions. Width = $\frac{1}{3}$ m, length = $\frac{2}{7}$ m, height = $\frac{1}{2}$ m. Calculate the exact volume in m³

8. A rectangle has an area of $4\frac{2}{5}$ m². If it has a. If it has a breath of $1\frac{2}{9}$ m then what is the length of the shape?

<u>Exam Questions:</u>

1. A shop sells three types of crisps. Ready Salted, Cheese and Onion and Smokey Bacon.

$\frac{1}{4}$ of all the crisps are Ready Salted.

$\frac{3}{7}$ of all the crisps are Smokey Bacon.

Find what fraction of the crisps are Ready Salted or Smokey Bacon?

2. A cafe sells three types of muffin. Chocolate, Blueberry or Lemon.

$\frac{5}{11}$ of all the muffins are Chocolate.

$\frac{2}{9}$ of all the muffins are Lemon.

Find what fraction of the muffins are Blueberry?

3. A video game store sells 3 kinds of Video Games, PS4, Xbox One or Nintendo Switch games.

$\frac{1}{3}$ of all the games sold are PS4.

$\frac{5}{28}$ of all the games are Nintendo Switch.

Find what fraction of the video games sold are for the Xbox One?

4. A National 5 Applications class is split into three teams, Red, Blue and Yellow.

$\frac{3}{5}$ of all the students are Red.

There are half as many Yellow than Red

The rest of the class are blue, find what fraction of the class are blue.

5. There are three types of sandwich served at lunch. Ham, Tuna or Cheese.

$\frac{2}{7}$ of the sandwiches are cheese.

There are twice as many ham as that.

What fraction of the sandwiches are tuna?

6. There are three different types of pen sold in a shop. Red, Blue and Black.

$\frac{3}{13}$ of the pens are black

$\frac{7}{19}$ of the pens are blue

Work out what fraction of the pens are red.

7. There are different employees working in a supermarket. Three of these are 'grocery colleagues', 'cleaning staff' and 'produce colleagues'

- $\frac{2}{5}$ of the employees are grocery colleagues.

- A quarter of the number of grocery colleagues make up all of the cleaning staff.

- $3\frac{1}{2}$ times the number of cleaning staff are produce colleagues.

What fraction of employees are produce colleagues?

8. In a school there are different faculties. Four of these are History, Maths, English and Science

- $\frac{5}{13}$ of the employees are English Teachers

- A third this number teach Science.

- If you subtract the number of English from the number of Science you get how many Maths teachers there are.

- A half of the number of Maths teachers, teach Humanities.

What fraction of the number of teachers teach Humanities?

9. There are different colours of car in a car park. Three of these colours include white, red and yellow.

- $\frac{1}{15}$ of the cars are yellow.

- $4\frac{1}{2}$ times this number are Red .

- A third of the number of red cars are white.

What fraction of cars are white?

10. A group of people are asked what streaming service they prefere.

- $\frac{2}{13}$ of the people said Amazon Prime

- $3\frac{1}{3}$ of this number said Netflix

- The rest said Disney+.

What fraction of people said Disney+?