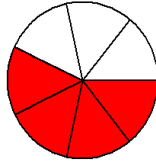Did you know that 5 out of 4 people don't understand jokes about fractions?

You know a lot about fractions already

--------- but please read carefully before answering

1. The circle below represents a cake.

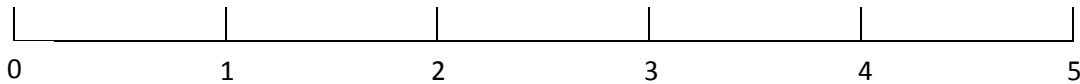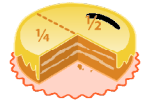 $\dfrac{3}{7}$ of the cake has been eaten. How much of the cake is left? _____

2. Estimate how much of the rectangle below is shaded.

   (i) Between 0 and $\dfrac{1}{4}$ (ii) between $\dfrac{11}{42}$ and $-$ (iii) between $\dfrac{13}{24}$ and $-$ (iv) between $\dfrac{3}{4}$ and 1

   Answer_____

3. Here is a number line.   Mark $2\dfrac{7}{8}$ on the number line.

   ```
   |_____|_____|_____|_____|_____|
   0       1       2       3       4       5
   ```

4. Show the fraction three – fifths in two different ways.

5. How many sixths in a whole? _____ Draw a diagram to show this.

6. What fraction of the heart shapes are upside down if ♡ is taken to be the right way around?
   Write your answer in two different ways.

Answers _____   _____

> How do we know that the following fractions are not in Ireland?
>
> x/c, y/c, z/c
>
> A. Their numerators are all over c's!!!

7. Explain in your own words what a fraction is.

    _____

8. Choose any fraction. Show how you would explain to your friend what this fraction means using a drawing of one object or a collection of objects.

9. Do you like learning about fractions? _____

    Do you find them easy to understand? _____

10. Why do you think you need to learn about fractions?

    _____
    _____
    _____

11. Do you know of any other parts of the Maths course which are really fractions but are called by other names?

    _____
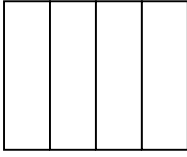
    (Think for example of when there are sales on and you get reductions. They don't usually say 3/10 off. What do they say? We also don't usually say €10 ½ when doing calculations with money. What do we say?)

12. Write down briefly some of the things you learned about fractions in primary school.
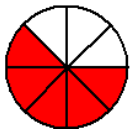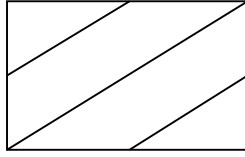
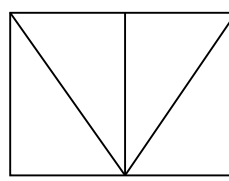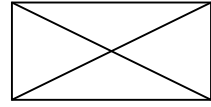13. Which of these rectangles is <u>not</u> divided into four equal parts?

(i)   (ii)   (iii)   (iv)
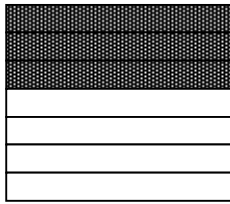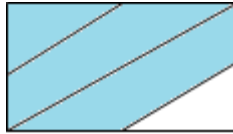
Answer _____

14. Which of these rectangles has $\dfrac{3}{4}$ shaded in? Is it more than one rectangle?

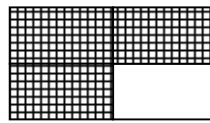(i)   (ii)   (iii)   (iv)

Answer: _____

15. Kate gave $\dfrac{2}{3}$ of her pocket money to charity. Joe gave $\dfrac{2}{3}$ of his pocket money to another charity. Joe said that he gave more money to charity than Kate did. Explain how Joe could be right.

_____

_____

16. Students were asked to explain why $\dfrac{5}{6}$ is greater than $\dfrac{4}{5}$. Which of the following explanations is the correct one?

   i.   Because 5 is greater than 4
  ii.   Because 6 is greater than 5
 iii.   Because 5+6 is greater than 4+5
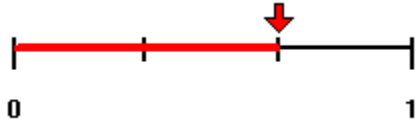 iv.   Because $\dfrac{5}{6}$ is closer to one than $\dfrac{4}{5}$

Answer: _____
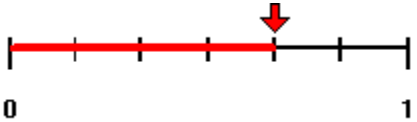
17. Which of these fractions is smallest?

(i) $\dfrac{1}{7}$ (ii) $\dfrac{1}{4}$ (iii) $\dfrac{2}{5}$ (iv) $\dfrac{1}{2}$ **Answer: ____**
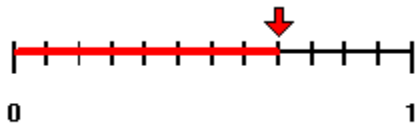
Explain_____

18. Below are 3 number lines all of which are the same length.

This number line shows $\dfrac{2}{3}$ shaded.

What fraction of this number line is shaded? __

What fraction of this number line is shaded? _____

19. What do the fractions in question 18 have in common?
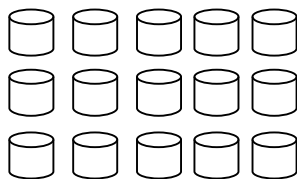
_____

20. The following diagrams represent 2 pizzas of the same size. You ate the shaded amount in the first pizza which is divided into 5 equal parts and your friend ate the shaded amount of the second pizza.
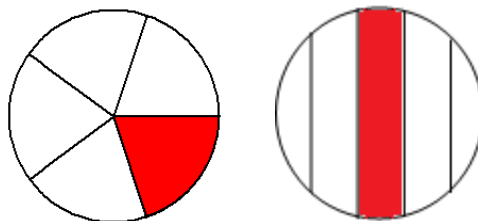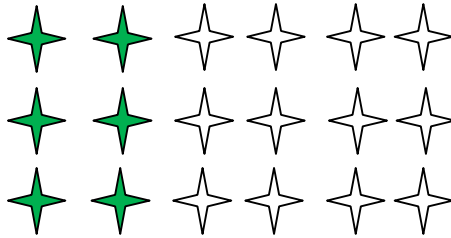
Did you both eat the same amount of pizza? _____
Explain your answer.

_____

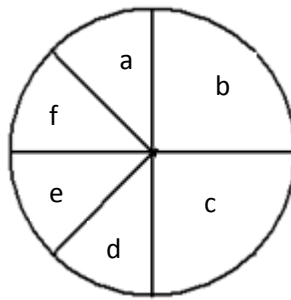21. Circle $\dfrac{4}{5}$ of these shapes.

22. How many **sixths** are shaded in the following diagram? $\dfrac{\square}{6}$

23. What fraction of the circle is part "f" in the following diagram? _____

24. John cuts a pizza into 12 slices. He then gives $\dfrac{2}{3}$ of the pizza to his friend Peter. How many slices of pizza does Peter get? _____

Draw a picture to show how this problem could be solved.
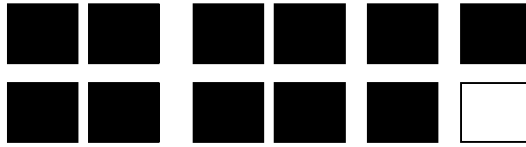
25. The following diagram shows $\dfrac{2}{3}$ of a courtyard which is being covered with tarmacadam.

Modify the picture to show the whole courtyard.

Explain why the diagram now shows the entire courtyard.

_____

26.

A. If the shaded portion represents $2\dfrac{3}{4}$, what is the unit?

B. Using the same unit what would 6 small rectangles represent?_____

C. If 3 shaded rectangles represented a unit, what number would be represented by the total number of shaded rectangles?_____

D. List some other numbers that the shaded portion could represent and give the unit in each case.

Number represented by the shaded rectangles	The number of squares = one unit

27.
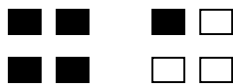
The shaded part of this diagram could represent the numbers

A: 5 **B**: $2\dfrac{1}{2}$ **C**: $\dfrac{5}{8}$ **D**: $1\dfrac{1}{4}$

Identify the **unit** in each case by drawing:

A: B: C: D:
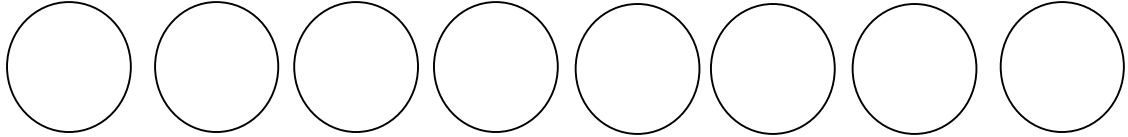
28. $\dfrac{3}{4} + \dfrac{2}{4} =$

29. $\dfrac{5}{8} - \dfrac{3}{8} =$

30. $\dfrac{2}{3} + \dfrac{1}{6} =$

HOMEWORK

1. Laura has 8 cookies to share between herself and her 5 friends. Using the pictures of the cookies below, **describe and model** how she can share out the cookies so that each person receives the same amount. How much does each person get?

2. Oliver had 5 chocolate bars to divide among 8 people. How much of a chocolate bar did each person get if they all got fair shares?
Describe and model how the bars are shared out?
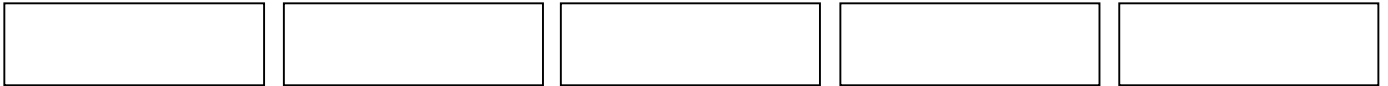
3. The shaded area below represents $\dfrac{2}{3}$ of a patio area. What shape would represent the whole patio?