

## Putting it all together

It is essential that we are comfortable working with all the different of numbers, understanding how to convert from one form to another.

For example, consider the number  $\frac{30}{50}$

We can simplify it to  $\frac{6}{10}$  by dividing the numerator (top) and the denominator (bottom) by 5.

We can write this as a decimal as 0,6

From  $\frac{6}{10}$  we can multiply the numerator (top) and the denominator (bottom) by 10 to get a denominator of 100 like this  $\frac{60}{100}$ .

When a fraction is **out of 100**, we use the word **percent**.

So, this number is also 60%.



Complete the following table, giving each number in its missing form.

Decimal	Fraction	Simplest fraction	Percentage	In words
	$\frac{14}{50}$			
0,02				
			45%	
		$\frac{2}{5}$		
				half
2,4				
	$\frac{38}{20}$			
			520%	
		$\frac{1}{3}$		
				one-quarter

**A mix of questions testing our number skills. Try these questions discussing your solution (not just your answer!) with a friend.**

1. Write the following numbers in **ascending** order – smallest to biggest. Hint: write them all in the same form first:

$$\frac{9}{18}; 0,32; 45\%; \frac{2}{3}; 1\%$$

2. Write the following numbers in **descending** order – biggest to smallest. Hint: write them all in the same form first:

$$\frac{4}{10}; 50\%; 3,45; 120\%; 3\frac{7}{14}$$

3. Simplify the following without a calculator. Hint: write them all in the same form first:

$$0,25 + 40\% + \frac{9}{12}$$

$$0,8 - \frac{1}{5} - 12\%$$

$$\frac{5}{4} - 0,12 + 8\%$$

4. Determine:

20% of 800 (remember of means times!)

$\frac{3}{5}$  of 60

$\frac{3}{8}$  of 72

$\frac{5}{7}$  of 35

4% of 300

5. If 27 litres of diesel costs R636,12 then:
- How many litres can I buy for R1000?
  - What will 90 litres cost?
6. If 8% of a number is 48 then what is the number?
7. Increase 340 by 10%
8. Decrease 950 by 17%
9. Thabo runs 350m in 57 seconds while Sanele runs 503m in 82 seconds. Who is faster?

10. If R500 buys \$29.12 then:

a. How much will \$80 cost in rand?

b. How many dollars can I get with R9000?

11. A shopkeeper marks up an item by 20% but then offers a 10% discount. What is her overall percentage profit?

12. A shopkeeper buys an item for R400 and sells it for R450. What is his percentage profit?

13. A shopkeeper marks up an item by 20% but then offers a 20% discount. What is her overall profit or loss expressed as a percentage?

**Space for your teacher to make up some extra examples...**