## Adding and Subtracting Fractions

When adding and subtracting fractions, we only add the numerators together - not the denominators:
eg.

$$
1 / 5+2 / 5+4 / 5=7 / 5
$$

Complete the following sums:

1) $1 / 3+2 / 3=$
2) $1 / 4+3 / 4=$
3) $2 / 5+4 / 5=$
4) $3 / 10+8 / 10=$
5) $3 / 3-2 / 3=$
6) $6 / 7-3 / 7=$
7) $5 / 10-3 / 10=$
8) $12 / 15-7 / 15=$

Remember - if the denominator is not the same for all of the fractions, you must first convert them all to a common denominator.
eg.

$$
1 / 3+1 / 4=4 / 12+3 / 12=7 / 12
$$

Complete the following sums:
9) $3 / 6+2 / 4=$
10) $3 / 5+6 / 10=$
11) $3 / 4+2 / 3=$
12) $2 / 3+5 / 6=$
13) $3 / 5-5 / 10=$
14) $5 / 7-2 / 3=$
15) $4 / 5-1 / 2=$
16) $3 / 4-2 / 3=$

ALSO, if you start with a mixed number, you must first convert them to improper fractions before you can add or subtract them.
eg.

$$
1^{1} / 2+2^{1} / 2=(2 / 2+1 / 2)+(2 / 2+2 / 2+1 / 2)=3 / 2+5 / 2=8 / 2
$$

Try these sums (show your working):

| 17) $2^{1 / 4}+1^{2} / 4=$ | 21) $2^{1 / 4}-1^{2} / 4=$ |
| :--- | :--- |
| 18) $3^{1 / 5}+2^{2} / 5=$ | 22) $3^{1 / 5}-2^{2} / 5=$ |
| 19) $5^{1 / 3}+1^{2} / 3=$ | 23) $5^{1 / 3}-1^{2} / 3=$ |
| 20) $3^{1 / 2}+4^{1} / 2=$ | 24) $4^{1 / 2}-3^{1 / 2}=$ |

The following sums are a mixture of what you have been doing today. Use the appropriate method to work out the answer. If your answer is an improper fraction, make sure that you convert it to a mixed number.
25) $1 / 4+2 / 4=$
26) $2 / 5-1 / 5=$
27) $2 / 4+3 / 4=$
28) $4 / 7-3 / 7=$
29) $2 / 4+2 / 3=$
30) $3 / 5-1 / 3=$
31) $1 / 3+4 / 6=$
32) $2 / 4-2 / 3=$
33) $4 \frac{1}{4}+1^{1 / 3}=$
34) $2 \frac{1}{3}+2^{1 / 2}=$
35) $4^{2} / 3-2^{2} / 3=$
36) $3^{2} / 4-2 \frac{1}{4}=$

