Adding Fractions with Different Denominators

For each question:

- · Write down the answer.
- · Show any workings clearly.
- · Give your answer in its simplest form.

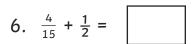
1.
$$\frac{5}{7} + \frac{1}{6} =$$

$$2. \ \frac{2}{5} + \frac{3}{11} = \boxed{}$$

3.
$$\frac{1}{2} + \frac{3}{8} =$$

4.
$$\frac{1}{3} + \frac{3}{5} =$$

5.
$$\frac{3}{10} + \frac{2}{6} =$$



7.	$\frac{2}{10} + \frac{2}{3} =$	
----	--------------------------------	--

- 8. Billy says that $\frac{1}{3} + \frac{5}{8}$ is $\frac{6}{11}$. Explain why Billy isn't correct and give the correct answer.
- 9. Show how $\frac{2}{5} + \frac{4}{10}$ is the same as $\frac{4}{5}$.
- 10. Paul says that $\frac{3}{9} + \frac{2}{6}$ is $\frac{12}{18}$ which is equivalent to $\frac{2}{3}$.

 Laura says that the answer is $\frac{1}{3}$.

 Who is correct and why?



Adding Fractions with Different Denominators **Answers**

- 1. $\frac{37}{42}$
- 2. $\frac{37}{55}$
- 3. $\frac{7}{8}$
- 4. $\frac{14}{15}$
- 5. $\frac{19}{30}$
- 6. $\frac{23}{30}$
- 7. $\frac{26}{30} = \frac{13}{15}$
- 8. Billy's answer is incorrect because you can't simply add the numerators and denominators together; you have to find a common denominator first. The answer should be $\frac{23}{24}$.
- 9. $\frac{2}{5} + \frac{4}{10} = \frac{4}{10} + \frac{4}{10}$. $\frac{4}{10} + \frac{4}{10} = \frac{8}{10}$.

The highest common factor for 8 and 10 is 2. $\frac{8}{10}$ is equivalent to $\frac{4}{5}$.

10. Paul is correct.

$$\frac{3}{9} + \frac{2}{6} = \frac{6}{18} + \frac{6}{18}$$

$$\frac{6}{18} + \frac{6}{18} = \frac{12}{18}$$

The highest common factor for 6 and 18 is 6.

$$\frac{12}{18} = \frac{2}{3}$$