

Pre-Algebra
Worksheet 4: Fractions II Answers

1. Calculate the following (and express your answers in their lowest terms):

(a) $\frac{4}{15} + \frac{2}{15}$

Both denominators are the same - 15 - so you can just add the numerators: $\frac{4}{15} + \frac{2}{15}$
 $= \frac{4+2}{15} = \frac{6}{15} = \frac{2}{5}$
Here, the fraction 6/15 was reduced to its lowest terms by dividing the numerator and the denominator by the highest common factor, 3.

(b) $\frac{1}{17} + \frac{7}{17} + \frac{9}{17}$

All three denominators are the same - 17 - so you can just add the numerators:
 $\frac{1}{17} + \frac{7}{17} + \frac{9}{17} = \frac{1+7+9}{17} = \frac{17}{17} = 1$
Where you were able to divide the numerator and the denominator by the HCF, 17.

(c) $\frac{3}{19} - \frac{2}{19}$

The denominators are the same - 19 - so: $\frac{3}{19} - \frac{2}{19} = \frac{3-2}{19} = \frac{1}{19}$

(d) $\frac{7}{20} - \frac{2}{20}$

$$\frac{7}{20} - \frac{2}{20} = \frac{7-2}{20} = \frac{5}{20} = \frac{1}{4}$$

where you reduced the fraction to its lowest terms by dividing by the HCF, 5.

(e) $\frac{1}{41} + \frac{5}{41} + \frac{16}{41} - \frac{14}{41}$

$$\frac{1}{41} + \frac{5}{41} + \frac{16}{41} - \frac{14}{41} = \frac{1+5+16-14}{41} = \frac{22-14}{41} = \frac{8}{41}$$

(f) $\frac{1}{99} + \frac{5}{99} + \frac{7}{99} + \frac{2}{99}$

$$\frac{1}{99} + \frac{5}{99} + \frac{7}{99} + \frac{2}{99} = \frac{1+5+7+2}{99} = \frac{15}{99} = \frac{5}{33}$$

(g) $\frac{14}{17} - \frac{7}{17}$