## 'Show that' fractions: add/subtract

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1: Work out the following, showing your method and simplifying your answer:

a) Show that 
$$\frac{1}{9} + \frac{8}{27} = \frac{11}{27}$$

b) Show that 
$$\frac{21}{50} + \frac{3}{10} = \frac{18}{25}$$

c) Show that 
$$\frac{5}{7} + \frac{3}{14} = \frac{13}{14}$$

d) Show that 
$$\frac{1}{12} + \frac{2}{3} = \frac{3}{4}$$

2: Work out the following, showing your method and simplifying your answer:

a) Show that 
$$\frac{7}{8} - \frac{1}{40} = \frac{17}{20}$$

b) Show that 
$$\frac{5}{6} - \frac{5}{18} = \frac{5}{9}$$

c) Show that 
$$\frac{4}{5} - \frac{7}{10} = \frac{1}{10}$$

d) Show that 
$$\frac{1}{2} - \frac{3}{8} = \frac{1}{8}$$

3: Work out the following, showing your method and simplifying your answer:

a) Show that  $\frac{3}{4} + \frac{1}{6} = \frac{11}{12}$ 

b) Show that  $\frac{2}{9} + \frac{1}{4} = \frac{17}{36}$ 

c) Show that  $\frac{2}{7} + \frac{1}{2} = \frac{11}{14}$ 

d) Show that  $\frac{1}{3} + \frac{3}{10} = \frac{19}{30}$ 

4: Work out the following, showing your method and simplifying your answer:

a) Show that  $\frac{4}{5} - \frac{2}{3} = \frac{2}{15}$ 

b) Show that  $\frac{1}{5} - \frac{1}{8} = \frac{3}{40}$ 

c) Show that  $\frac{3}{4} - \frac{3}{10} = \frac{9}{20}$ 

d) Show that  $\frac{3}{10} - \frac{1}{7} = \frac{11}{70}$ 

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5: Work out the following, showing your method and simplifying your answer:

a) Show that  $1\frac{1}{4} + 2\frac{3}{20} = 3\frac{2}{5}$ 

b) Show that  $4\frac{19}{28} + 1\frac{6}{7} = 6\frac{15}{28}$ 

c) Show that  $3\frac{7}{8} + 1\frac{1}{24} = 4\frac{11}{12}$ 

d) Show that  $3\frac{29}{30} + 2\frac{1}{6} = 6\frac{2}{15}$ 

6: Work out the following, showing your method and simplifying your answer:

a) Show that  $4\frac{1}{5} - 1\frac{11}{15} = 2\frac{7}{15}$ 

b) Show that  $4\frac{1}{12} - 1\frac{1}{3} = 2\frac{3}{4}$ 

c) Show that  $3\frac{3}{10} - 2\frac{17}{30} = \frac{11}{15}$ 

d) Show that  $3\frac{3}{10} - 1\frac{1}{2} = 1\frac{4}{5}$ 

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7: Work out the following, showing your method and simplifying your answer:

a) Show that  $4\frac{2}{3} + 2\frac{7}{8} = 7\frac{13}{24}$ 

b) Show that  $1\frac{1}{7} + 3\frac{5}{6} = 4\frac{41}{42}$ 

c) Show that  $4\frac{3}{10} + 2\frac{7}{9} = 7\frac{7}{90}$ 

d) Show that  $3\frac{2}{3} + 1\frac{3}{7} = 5\frac{2}{21}$ 

8: Work out the following, showing your method and simplifying your answer:

a) Show that  $4\frac{1}{10} - 1\frac{7}{8} = 2\frac{9}{40}$ 

b) Show that  $3\frac{2}{5} - 2\frac{6}{7} = \frac{19}{35}$ 

c) Show that  $4\frac{3}{8} - 2\frac{3}{7} = 1\frac{53}{56}$ 

d) Show that  $3\frac{5}{6} - 1\frac{3}{10} = 2\frac{8}{15}$ 

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## Answers: 'Show that' fractions: add/subtract

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1: a) 
$$\frac{3}{27} + \frac{8}{27} = \frac{11}{27}$$

b) 
$$\frac{21}{50} + \frac{15}{50} = \frac{36}{50} = \frac{18}{25}$$

c) 
$$\frac{10}{14} + \frac{3}{14} = \frac{13}{14}$$

d) 
$$\frac{1}{12} + \frac{8}{12} = \frac{9}{12} = \frac{3}{4}$$

2: a) 
$$\frac{35}{40} - \frac{1}{40} = \frac{34}{40} = \frac{17}{20}$$
 b)  $\frac{15}{18} - \frac{5}{18} = \frac{10}{18} = \frac{5}{9}$  c)  $\frac{8}{10} - \frac{7}{10} = \frac{1}{10}$ 

b) 
$$\frac{15}{18} - \frac{5}{18} = \frac{10}{18} = \frac{5}{9}$$

c) 
$$\frac{8}{10} - \frac{7}{10} = \frac{1}{10}$$

d) 
$$\frac{4}{8} - \frac{3}{8} = \frac{1}{8}$$

3: a) 
$$\frac{9}{12} + \frac{2}{12} = \frac{11}{12}$$

b) 
$$\frac{8}{36} + \frac{9}{36} = \frac{17}{36}$$

c) 
$$\frac{4}{14} + \frac{7}{14} = \frac{11}{14}$$

d) 
$$\frac{10}{30} + \frac{9}{30} = \frac{19}{30}$$

4: a) 
$$\frac{12}{15} - \frac{10}{15} = \frac{2}{15}$$
 b)  $\frac{8}{40} - \frac{5}{40} = \frac{3}{40}$ 

b) 
$$\frac{8}{40} - \frac{5}{40} = \frac{3}{40}$$

c) 
$$\frac{15}{20} - \frac{6}{20} = \frac{9}{20}$$

d) 
$$\frac{21}{70} - \frac{10}{70} = \frac{11}{70}$$

5: a) 
$$1\frac{5}{20} + 2\frac{3}{20} = 3\frac{8}{20} = 3\frac{2}{5}$$

b) 
$$4\frac{19}{28} + 1\frac{24}{28} = 6\frac{15}{28}$$

c) 
$$3\frac{21}{24} + 1\frac{1}{24} = 4\frac{22}{24} = 4\frac{11}{12}$$

d) 
$$3\frac{29}{30} + 2\frac{5}{30} = 6\frac{4}{30} = 6\frac{2}{15}$$

6: a) 
$$4\frac{3}{15} - 1\frac{11}{15} = 2\frac{7}{15}$$

b) 
$$4\frac{1}{12} - 1\frac{4}{12} = 2\frac{9}{12} = 2\frac{3}{4}$$

c) 
$$3\frac{9}{30} - 2\frac{17}{30} = \frac{22}{30} = \frac{11}{15}$$

d) 
$$3\frac{3}{10} - 1\frac{5}{10} = 1\frac{8}{10} = 1\frac{4}{5}$$

7: a) 
$$4\frac{16}{24} + 2\frac{21}{24} = 7\frac{13}{24}$$
 b)  $1\frac{6}{42} + 3\frac{35}{42} = 4\frac{41}{42}$  c)  $4\frac{27}{90} + 2\frac{70}{90} = 7\frac{7}{90}$  d)  $3\frac{14}{21} + 1\frac{9}{21} = 5\frac{2}{21}$ 

b) 
$$1\frac{6}{42} + 3\frac{35}{42} = 4\frac{41}{42}$$

c) 
$$4\frac{27}{90} + 2\frac{70}{90} = 7\frac{7}{90}$$

d) 
$$3\frac{14}{21} + 1\frac{9}{21} = 5\frac{2}{21}$$

8: a) 
$$4\frac{4}{40} - 1\frac{35}{40} = 2\frac{9}{40}$$

b) 
$$3\frac{14}{35} - 2\frac{30}{35} = \frac{19}{35}$$

c) 
$$4\frac{21}{56} - 2\frac{24}{56} = 1\frac{53}{56}$$

d) 
$$3\frac{25}{30} - 1\frac{9}{30} = 2\frac{16}{30} = 2\frac{8}{15}$$