Outcome 1 – Adding & Subtracting Fractions

Bronze examples

Examples...

To add/subtract fractions with the same denominator, just add/subtract the numerators!

$$\frac{5}{7}+\frac{1}{7}=\frac{6}{7} \qquad \frac{2}{9}-\frac{1}{9}=\frac{1}{9}$$

Silver examples

Examples...

1. Multiply denominators!
2. Cross multiply!
3. Add/subtract the numerators!
4. Write as mixed number and simplify! (if required)

$$\frac{3}{4}\times\frac{9}{10}=\frac{30}{40}+\frac{36}{40}=\frac{66}{40}=1\frac{26}{40}=1\frac{13}{20}$$

$$\frac{9}{10}\times\frac{3}{8}=\frac{72}{80}+\frac{30}{80}=\frac{102}{80}=1\frac{22}{80}=1\frac{11}{40}$$

Gold example

Examples...

1. Change to "Top Heavy"!
2. Multiply denominators!
3. Cross multiply!
4. Add/subtract the numerators!
5. Write as mixed number and simplify! (if required)

$$4\frac{3}{4}+1\frac{2}{3}=\frac{19}{4}\times\frac{5}{3}=\frac{57}{12}+\frac{20}{12}$$

$$=\frac{77}{12}=6\frac{5}{12}$$

Bronze Questions

Add or subtract the following fractions...

1. $\frac{3}{7}+\frac{2}{7}$
2. $\frac{3}{5}-\frac{2}{5}$
3. $\frac{4}{9}+\frac{1}{9}$
4. $\frac{10}{11}-\frac{2}{11}$
5. $\frac{8}{13}+\frac{3}{13}$
6. $\frac{11}{17}-\frac{9}{17}$
7. $\frac{3}{19}+\frac{7}{19}$
8. $\frac{18}{23}-\frac{5}{23}$

Silver Questions

Add or subtract the following fractions...

1. $\frac{1}{2}+\frac{5}{6}$
2. $\frac{6}{7}-\frac{1}{5}$
3. $\frac{5}{8}+\frac{1}{3}$
4. $\frac{7}{12}-\frac{1}{6}$
5. $\frac{5}{6}+\frac{7}{9}$
6. $\frac{4}{9}-\frac{2}{5}$
7. $\frac{3}{10}+\frac{4}{7}$
8. $\frac{7}{12}-\frac{3}{8}$

Gold Questions

Add or subtract the following fractions...

1. $1\frac{1}{6}+2\frac{2}{7}$
2. $2\frac{3}{7}-1\frac{1}{3}$
3. $2\frac{3}{8}+1\frac{1}{9}$
4. $1\frac{7}{12}-1\frac{1}{2}$
5. $10\frac{3}{4}+1\frac{4}{5}$
6. $5\frac{2}{3}-2\frac{1}{4}$
7. $1\frac{3}{5}+5\frac{2}{7}$
8. $3\frac{5}{12}-1\frac{1}{7}$

Bronze Answers

1. $\frac{6}{7}$
2. $\frac{4}{9}$
3. $\frac{8}{15}$
4. $\frac{9}{10}$
5. $\frac{24}{49}$
6. $\frac{26}{27}$
7. $\frac{28}{45}$
8. $\frac{36}{55}$

Silver Answers

1. $1\frac{1}{3}$
2. $\frac{23}{35}$
3. $\frac{23}{24}$
4. $\frac{5}{12}$
5. $1\frac{11}{18}$
6. $\frac{2}{45}$
7. $\frac{61}{70}$
8. $\frac{5}{24}$

Gold Answers

1. $3\frac{19}{42}$
2. $1\frac{2}{21}$
3. $3\frac{35}{72}$
4. $\frac{1}{12}$
5. $12\frac{11}{20}$
6. $3\frac{5}{12}$
7. $6\frac{31}{35}$
8. $2\frac{23}{84}$