math Antics
Exercises

Name:

Date:

Finding a Common Denominator: ECD

1 Find the "Easiest Common Denominator" (ECD) for these two fractions:

$\frac{3}{4}$ and $\frac{1}{5}$

2 Find the "Easiest Common Denominator" (ECD) for these two fractions:

$\frac{5}{6}$ and $\frac{2}{3}$

3 Convert these to "like" fractions with the ECD method:

$\frac{1}{4}$ and $\frac{2}{3}$

4 Convert these to "like" fractions with the ECD method:

$\frac{3}{7}$ and $\frac{1}{2}$

5 $\frac{4}{5} + \frac{1}{2}$

6 $\frac{3}{2} - \frac{5}{9}$

7 $\frac{1}{3} + \frac{5}{8}$

8 $\frac{7}{8} - \frac{2}{5}$

9 $\frac{3}{10} + \frac{4}{8}$

10 $\frac{9}{15} - \frac{7}{24}$

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Exercises

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Finding a Common Denominator: ECD

1 Find the "Easiest Common Denominator" (ECD) for these two fractions:

$\frac{3}{4}$ and $\frac{1}{5}$

4 x 5 = 20
so the ECD is 20

2 Find the "Easiest Common Denominator" (ECD) for these two fractions:

$\frac{5}{6}$ and $\frac{2}{3}$

6 x 3 = 18
so the ECD is 18

3 Convert these to "like" fractions with the ECD method:

$\frac{3}{3} \times \frac{1}{4}$ and $\frac{2}{3} \times \frac{4}{4}$

$\frac{3}{12}$ $\frac{8}{12}$

4 Convert these to "like" fractions with the ECD method:

$\frac{2}{2} \times \frac{3}{7}$ and $\frac{1}{2} \times \frac{7}{7}$

$\frac{6}{14}$ $\frac{7}{14}$

5 $\frac{4}{5} + \frac{1}{2}$

$\frac{2}{2} \times \frac{4}{5} + \frac{1}{2} \times \frac{5}{5}$

$\frac{8}{10} + \frac{5}{10} = \frac{13}{10}$ or $1\frac{3}{10}$

6 $\frac{3}{2} - \frac{5}{9}$

$\frac{9}{9} \times \frac{3}{2} - \frac{5}{9} \times \frac{2}{2}$

$\frac{27}{18} - \frac{10}{18} = \frac{17}{18}$

7 $\frac{1}{3} + \frac{5}{8}$

$\frac{8}{8} \times \frac{1}{3} + \frac{5}{8} \times \frac{3}{3}$

$\frac{8}{24} + \frac{15}{24} = \frac{23}{24}$

8 $\frac{7}{8} - \frac{2}{5}$

$\frac{5}{5} \times \frac{7}{8} - \frac{2}{5} \times \frac{8}{8}$

$\frac{35}{40} - \frac{16}{40} = \frac{19}{40}$

9 $\frac{3}{10} + \frac{4}{8}$

$\frac{8}{8} \times \frac{3}{10} + \frac{4}{8} \times \frac{10}{10}$

$\frac{24}{80} + \frac{40}{80} = \frac{64}{80}$ or $\frac{4}{5}$

10 $\frac{9}{15} - \frac{7}{24}$

$\frac{24}{24} \times \frac{9}{15} - \frac{7}{24} \times \frac{15}{15}$

$\frac{216}{360} - \frac{105}{360} = \frac{111}{360}$

See Video for step-by-step solutions to each problem.

math Antics Worksheets

Name:

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Changing 'Un-Like' Fractions into 'Like' Fractions

F-ECD 1

Instructions: Change these 'un-like' fractions into 'like' fractions using the ECD method you learned in the video. Use the guides to help you. The first one has been done for you.

1 $\frac{1}{2}$ $\frac{3}{5}$

$\frac{5}{5} \times \frac{1}{2}$ $\frac{3}{5} \times \frac{2}{2}$

$\frac{5}{10}$ $\frac{6}{10}$

2 $\frac{5}{6}$ $\frac{1}{4}$

$\_ \times \frac{5}{6}$ $\frac{1}{4} \times \_$

$\_$ $\_$

3 $\frac{1}{3}$ $\frac{1}{4}$

$\_ \times \frac{1}{3}$ $\frac{1}{4} \times \_$

$\_$ $\_$

4 $\frac{2}{3}$ $\frac{1}{8}$

$\_ \times \frac{2}{3}$ $\frac{1}{8} \times \_$

$\_$ $\_$

5 $\frac{2}{7}$ $\frac{1}{2}$

$\_ \times \frac{2}{7}$ $\frac{1}{2} \times \_$

$\_$ $\_$

6 $\frac{3}{4}$ $\frac{3}{10}$

$\_ \times \frac{3}{4}$ $\frac{3}{10} \times \_$

$\_$ $\_$

7 $\frac{2}{3}$ $\frac{5}{6}$

$\_ \times \frac{2}{3}$ $\frac{5}{6} \times \_$

$\_$ $\_$

8 $\frac{3}{5}$ $\frac{7}{9}$

$\_ \times \frac{3}{5}$ $\frac{7}{9} \times \_$

$\_$ $\_$

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Adding 'Un-Like' Fractions Using the ECD Method

F-ECD 2

Instructions: Add these 'un-like' fractions using the ECD method you learned in the video. Use the guides to help you. You do **not** need to simplify your answers.

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

$\frac{5}{5} \times \frac{3}{4} + \frac{1}{5} \times \frac{4}{4}$

$\frac{15}{20} + \frac{4}{20} = \frac{19}{20}$

2 $\frac{2}{5} + \frac{3}{8}$

$\_\_ \times \frac{2}{5} + \frac{3}{8} \times \_\_$

$\_\_ + \_\_ = \_\_$

3 $\frac{1}{6} + \frac{1}{3}$

$\_\_ \times \frac{1}{6} + \frac{1}{3} \times \_\_$

$\_\_ + \_\_ = \_\_$

4 $\frac{1}{2} + \frac{5}{8}$

$\_\_ \times \frac{1}{2} + \frac{5}{8} \times \_\_$

$\_\_ + \_\_ = \_\_$

5 $\frac{4}{5} + \frac{3}{8}$

$\_\_ \times \frac{4}{5} + \frac{3}{8} \times \_\_$

$\_\_ + \_\_ = \_\_$

6 $\frac{1}{4} + \frac{5}{7}$

$\_\_ \times \frac{1}{4} + \frac{5}{7} \times \_\_$

$\_\_ + \_\_ = \_\_$

7 $\frac{2}{7} + \frac{1}{3}$

$\_\_ \times \frac{2}{7} + \frac{1}{3} \times \_\_$

$\_\_ + \_\_ = \_\_$

8 $\frac{2}{9} + \frac{1}{7}$

$\_\_ \times \frac{2}{9} + \frac{1}{7} \times \_\_$

$\_\_ + \_\_ = \_\_$

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Subtracting 'Un-Like' Fractions Using the ECD Method

F-ECD 3

Instructions: Subtract these 'un-like' fractions using the ECD method you learned in the video. Use the guides to help you. You do **not** need to simplify your answers.

1 $\frac{3}{4} - \frac{2}{6}$

$\frac{6}{6} \times \frac{3}{4} - \frac{2}{6} \times \frac{4}{4}$

$\frac{18}{24} - \frac{8}{24} = \frac{10}{24}$

2 $\frac{5}{7} - \frac{1}{2}$

$\frac{\quad}{\quad} \times \frac{5}{7} - \frac{1}{2} \times \frac{\quad}{\quad}$

$\frac{\quad}{\quad} - \frac{\quad}{\quad} = \frac{\quad}{\quad}$

3 $\frac{2}{3} - \frac{1}{5}$

$\frac{\quad}{\quad} \times \frac{2}{3} - \frac{1}{5} \times \frac{\quad}{\quad}$

$\frac{\quad}{\quad} - \frac{\quad}{\quad} = \frac{\quad}{\quad}$

4 $\frac{7}{9} - \frac{2}{3}$

$\frac{\quad}{\quad} \times \frac{7}{9} - \frac{2}{3} \times \frac{\quad}{\quad}$

$\frac{\quad}{\quad} - \frac{\quad}{\quad} = \frac{\quad}{\quad}$

5 $\frac{2}{6} - \frac{1}{4}$

$\frac{\quad}{\quad} \times \frac{2}{6} - \frac{1}{4} \times \frac{\quad}{\quad}$

$\frac{\quad}{\quad} - \frac{\quad}{\quad} = \frac{\quad}{\quad}$

6 $\frac{3}{2} - \frac{8}{9}$

$\frac{\quad}{\quad} \times \frac{3}{2} - \frac{8}{9} \times \frac{\quad}{\quad}$

$\frac{\quad}{\quad} - \frac{\quad}{\quad} = \frac{\quad}{\quad}$

7 $\frac{3}{5} - \frac{3}{8}$

$\frac{\quad}{\quad} \times \frac{3}{5} - \frac{3}{8} \times \frac{\quad}{\quad}$

$\frac{\quad}{\quad} - \frac{\quad}{\quad} = \frac{\quad}{\quad}$

8 $\frac{6}{10} - \frac{3}{8}$

$\frac{\quad}{\quad} \times \frac{6}{10} - \frac{3}{8} \times \frac{\quad}{\quad}$

$\frac{\quad}{\quad} - \frac{\quad}{\quad} = \frac{\quad}{\quad}$

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Mixed Practice Using the ECD Method

F-ECD 4

Instructions: Add or subtract these 'un-like' fractions using the ECD method you learned in the video. Show your work. You do **not** need to simplify your answers.

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

$\frac{8}{8} \times \frac{2}{3} + \frac{1}{8} \times \frac{3}{3}$

$\frac{16}{24} + \frac{3}{24} = \frac{19}{24}$

2 $\frac{4}{3} - \frac{5}{7}$

3 $\frac{4}{6} - \frac{1}{5}$

4 $\frac{9}{10} - \frac{1}{3}$

5 $\frac{3}{8} + \frac{3}{2}$

6 $\frac{2}{7} + \frac{5}{6}$

7 $\frac{7}{10} - \frac{3}{5}$

8 $\frac{5}{11} + \frac{2}{5}$

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Mixed Practice Using the ECD Method - Set 2

F-ECD 5

Instructions: Add or subtract these 'un-like' fractions using the ECD method you learned in the video. Show your work. You do **not** need to simplify your answers.

1 $\frac{4}{5} + \frac{1}{2}$

$\frac{2}{2} \times \frac{4}{5} + \frac{1}{2} \times \frac{5}{5}$

$\frac{8}{10} + \frac{5}{10} = \frac{13}{10}$

2 $\frac{10}{12} + \frac{2}{3}$

3 $\frac{5}{3} - \frac{1}{4}$

4 $\frac{1}{9} + \frac{1}{8}$

5 $\frac{3}{10} + \frac{1}{9}$

6 $\frac{6}{7} + \frac{3}{4}$

7 $\frac{1}{4} - \frac{2}{11}$

8 $\frac{4}{7} - \frac{1}{10}$

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Changing 'Un-Like' Fractions into 'Like' Fractions

F-ECD 1

Instructions: Change these 'un-like' fractions into 'like' fractions using the ECD method you learned in the video. Use the guides to help you. The first one has been done for you.

1 $\frac{1}{2}$ $\frac{3}{5}$

$\frac{5}{5} \times \frac{1}{2}$ $\frac{3}{5} \times \frac{2}{2}$

$\frac{5}{10}$ $\frac{6}{10}$

2 $\frac{5}{6}$ $\frac{1}{4}$

$\frac{4}{4} \times \frac{5}{6}$ $\frac{1}{4} \times \frac{6}{6}$

$\frac{20}{24}$ $\frac{6}{24}$

3 $\frac{1}{3}$ $\frac{1}{4}$

$\frac{4}{4} \times \frac{1}{3}$ $\frac{1}{4} \times \frac{3}{3}$

$\frac{4}{12}$ $\frac{3}{12}$

4 $\frac{2}{3}$ $\frac{1}{8}$

$\frac{8}{8} \times \frac{2}{3}$ $\frac{1}{8} \times \frac{3}{3}$

$\frac{16}{24}$ $\frac{3}{24}$

5 $\frac{2}{7}$ $\frac{1}{2}$

$\frac{2}{2} \times \frac{2}{7}$ $\frac{1}{2} \times \frac{7}{7}$

$\frac{4}{14}$ $\frac{7}{14}$

6 $\frac{3}{4}$ $\frac{3}{10}$

$\frac{10}{10} \times \frac{3}{4}$ $\frac{3}{10} \times \frac{4}{4}$

$\frac{30}{40}$ $\frac{12}{40}$

7 $\frac{2}{3}$ $\frac{5}{6}$

$\frac{6}{6} \times \frac{2}{3}$ $\frac{5}{6} \times \frac{3}{3}$

$\frac{12}{18}$ $\frac{15}{18}$

8 $\frac{3}{5}$ $\frac{7}{9}$

$\frac{9}{9} \times \frac{3}{5}$ $\frac{7}{9} \times \frac{5}{5}$

$\frac{27}{45}$ $\frac{35}{45}$

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Adding 'Un-Like' Fractions Using the ECD Method

F-ECD 2

Instructions: Add these 'un-like' fractions using the ECD method you learned in the video. Use the guides to help you. You do **not** need to simplify your answers.

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

$\frac{5}{5} \times \frac{3}{4} + \frac{1}{5} \times \frac{4}{4}$

$\frac{15}{20} + \frac{4}{20} = \frac{19}{20}$

2 $\frac{2}{5} + \frac{3}{8}$

$\frac{8}{8} \times \frac{2}{5} + \frac{3}{8} \times \frac{5}{5}$

$\frac{16}{40} + \frac{15}{40} = \frac{31}{40}$

3 $\frac{1}{6} + \frac{1}{3}$

$\frac{3}{3} \times \frac{1}{6} + \frac{1}{3} \times \frac{6}{6}$

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

4 $\frac{1}{2} + \frac{5}{8}$

$\frac{8}{8} \times \frac{1}{2} + \frac{5}{8} \times \frac{2}{2}$

$\frac{8}{16} + \frac{10}{16} = \frac{18}{16}$

5 $\frac{4}{5} + \frac{3}{8}$

$\frac{8}{8} \times \frac{4}{5} + \frac{3}{8} \times \frac{5}{5}$

$\frac{32}{40} + \frac{15}{40} = \frac{47}{40}$

6 $\frac{1}{4} + \frac{5}{7}$

$\frac{7}{7} \times \frac{1}{4} + \frac{5}{7} \times \frac{4}{4}$

$\frac{7}{28} + \frac{20}{28} = \frac{27}{28}$

7 $\frac{2}{7} + \frac{1}{3}$

$\frac{3}{3} \times \frac{2}{7} + \frac{1}{3} \times \frac{7}{7}$

$\frac{6}{21} + \frac{7}{21} = \frac{13}{21}$

8 $\frac{2}{9} + \frac{1}{7}$

$\frac{7}{7} \times \frac{2}{9} + \frac{1}{7} \times \frac{9}{9}$

$\frac{14}{63} + \frac{9}{63} = \frac{23}{63}$

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Subtracting 'Un-Like' Fractions Using the ECD Method

F-ECD 3

Instructions: Subtract these 'un-like' fractions using the ECD method you learned in the video. Use the guides to help you. You do **not** need to simplify your answers.

1 $\frac{3}{4} - \frac{2}{6}$

$\frac{6}{6} \times \frac{3}{4} - \frac{2}{6} \times \frac{4}{4}$

$\frac{18}{24} - \frac{8}{24} = \frac{10}{24}$

2 $\frac{5}{7} - \frac{1}{2}$

$\frac{2}{2} \times \frac{5}{7} - \frac{1}{2} \times \frac{7}{7}$

$\frac{10}{14} - \frac{7}{14} = \frac{3}{14}$

3 $\frac{2}{3} - \frac{1}{5}$

$\frac{5}{5} \times \frac{2}{3} - \frac{1}{5} \times \frac{3}{3}$

$\frac{10}{15} - \frac{3}{15} = \frac{7}{15}$

4 $\frac{7}{9} - \frac{2}{3}$

$\frac{3}{3} \times \frac{7}{9} - \frac{2}{3} \times \frac{9}{9}$

$\frac{21}{27} - \frac{18}{27} = \frac{3}{27}$

5 $\frac{2}{6} - \frac{1}{4}$

$\frac{4}{4} \times \frac{2}{6} - \frac{1}{4} \times \frac{6}{6}$

$\frac{8}{24} - \frac{6}{24} = \frac{2}{24}$

6 $\frac{3}{2} - \frac{8}{9}$

$\frac{9}{9} \times \frac{3}{2} - \frac{8}{9} \times \frac{2}{2}$

$\frac{27}{18} - \frac{16}{18} = \frac{11}{18}$

7 $\frac{3}{5} - \frac{3}{8}$

$\frac{8}{8} \times \frac{3}{5} - \frac{3}{8} \times \frac{5}{5}$

$\frac{24}{40} - \frac{15}{40} = \frac{9}{40}$

8 $\frac{6}{10} - \frac{3}{8}$

$\frac{8}{8} \times \frac{6}{10} - \frac{3}{8} \times \frac{10}{10}$

$\frac{48}{80} - \frac{30}{80} = \frac{18}{80}$

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Mixed Practice Using the ECD Method

F-ECD 4

Instructions: Add or subtract these 'un-like' fractions using the ECD method you learned in the video. Show your work. You do **not** need to simplify your answers.

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

$\frac{8}{8} \times \frac{2}{3} + \frac{1}{8} \times \frac{3}{3}$

$\frac{16}{24} + \frac{3}{24} = \frac{19}{24}$

2 $\frac{4}{3} - \frac{5}{7}$

$\frac{7}{7} \times \frac{4}{3} - \frac{5}{7} \times \frac{3}{3}$

$\frac{28}{21} - \frac{15}{21} = \frac{13}{21}$

3 $\frac{4}{6} - \frac{1}{5}$

$\frac{5}{5} \times \frac{4}{6} - \frac{1}{5} \times \frac{6}{6}$

$\frac{20}{30} - \frac{6}{30} = \frac{14}{30}$

4 $\frac{9}{10} - \frac{1}{3}$

$\frac{3}{3} \times \frac{9}{10} - \frac{1}{3} \times \frac{10}{10}$

$\frac{27}{30} - \frac{10}{30} = \frac{17}{30}$

5 $\frac{3}{8} + \frac{3}{2}$

$\frac{2}{2} \times \frac{3}{8} + \frac{3}{2} \times \frac{8}{8}$

$\frac{6}{16} + \frac{24}{16} = \frac{30}{16}$

6 $\frac{2}{7} + \frac{5}{6}$

$\frac{6}{6} \times \frac{2}{7} + \frac{5}{6} \times \frac{7}{7}$

$\frac{12}{42} + \frac{35}{42} = \frac{47}{42}$

7 $\frac{7}{10} - \frac{3}{5}$

$\frac{5}{5} \times \frac{7}{10} - \frac{3}{5} \times \frac{10}{10}$

$\frac{35}{50} - \frac{30}{50} = \frac{5}{50}$

8 $\frac{5}{11} + \frac{2}{5}$

$\frac{5}{5} \times \frac{5}{11} + \frac{2}{5} \times \frac{11}{11}$

$\frac{25}{55} + \frac{22}{55} = \frac{47}{55}$

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Mixed Practice Using the ECD Method - Set 2

F-ECD 5

Instructions: Add or subtract these 'un-like' fractions using the ECD method you learned in the video. Show your work. You do **not** need to simplify your answers.

1 $\frac{4}{5} + \frac{1}{2}$

$\frac{2}{2} \times \frac{4}{5} + \frac{1}{2} \times \frac{5}{5}$

$\frac{8}{10} + \frac{5}{10} = \frac{13}{10}$

2 $\frac{10}{12} + \frac{2}{3}$

$\frac{3}{3} \times \frac{10}{12} + \frac{2}{3} \times \frac{12}{12}$

$\frac{30}{36} + \frac{24}{36} = \frac{54}{36}$

3 $\frac{5}{3} - \frac{1}{4}$

$\frac{4}{4} \times \frac{5}{3} - \frac{1}{4} \times \frac{3}{3}$

$\frac{20}{12} - \frac{3}{12} = \frac{17}{12}$

4 $\frac{1}{9} + \frac{1}{8}$

$\frac{8}{8} \times \frac{1}{9} + \frac{1}{8} \times \frac{9}{9}$

$\frac{8}{72} + \frac{9}{72} = \frac{17}{72}$

5 $\frac{3}{10} + \frac{1}{9}$

$\frac{9}{9} \times \frac{3}{10} + \frac{1}{9} \times \frac{10}{10}$

$\frac{27}{90} + \frac{10}{90} = \frac{37}{90}$

6 $\frac{6}{7} + \frac{3}{4}$

$\frac{4}{4} \times \frac{6}{7} + \frac{3}{4} \times \frac{7}{7}$

$\frac{24}{28} + \frac{21}{28} = \frac{45}{28}$

7 $\frac{1}{4} - \frac{2}{11}$

$\frac{11}{11} \times \frac{1}{4} - \frac{2}{11} \times \frac{4}{4}$

$\frac{11}{44} - \frac{8}{44} = \frac{3}{44}$

8 $\frac{4}{7} - \frac{1}{10}$

$\frac{10}{10} \times \frac{4}{7} - \frac{1}{10} \times \frac{7}{7}$

$\frac{40}{70} - \frac{7}{70} = \frac{33}{70}$