

Compare unlike fractions

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Use the explanations to discuss the idea. A worked answer is one example; equivalent answers may also be valid.

1. Compare $\frac{1}{2}$ $\underline{\hspace{1cm}}$ $\frac{4}{5}$ of the same-sized whole.

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$\frac{1}{2} < \frac{4}{5}$. Rename both with denominator 10: $\frac{5}{10}$ and $\frac{8}{10}$. Now each piece is the same size, so compare 5 and 8.

$\frac{1}{2}$



$\frac{4}{5}$



2. Compare $\frac{2}{3}$ $\underline{\hspace{1cm}}$ $\frac{3}{10}$ of the same-sized whole.

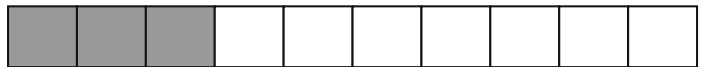
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$\frac{2}{3} > \frac{3}{10}$. Rename both with denominator 30: $\frac{20}{30}$ and $\frac{9}{30}$. Now each piece is the same size, so compare 20 and 9.

$\frac{2}{3}$



$\frac{3}{10}$



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3. Compare $\frac{1}{6}$ $\underline{\hspace{1cm}}$ $\frac{18}{12}$ of the same-sized whole.

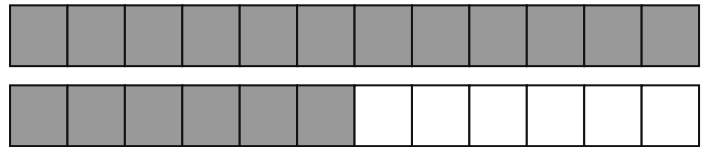
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$\frac{1}{6} < \frac{18}{12}$. Rename both with denominator 72: $\frac{12}{72}$ and $\frac{108}{72}$. Now each piece is the same size, so compare 12 and 108.

$\frac{1}{6}$



$\frac{18}{12}$

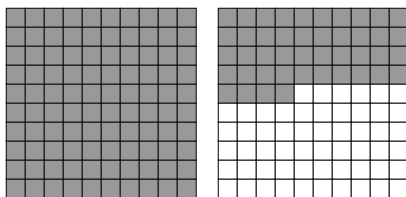


4. Compare $\frac{144}{100}$ $\underline{\hspace{1cm}}$ $\frac{13}{12}$ of the same-sized whole.

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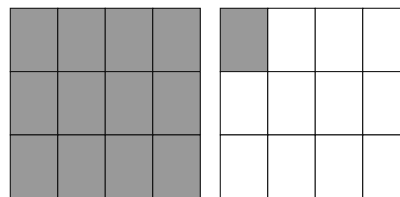
$\frac{144}{100} > \frac{13}{12}$. Rename both with denominator 1200: $\frac{1728}{1200}$ and $\frac{1300}{1200}$. Now each piece is the same size, so compare 1728 and 1300.

$\frac{144}{100}$



Each square is one whole, with 10 rows of 10 hundredths.

$\frac{13}{12}$



Each square is one whole, with 12 equal parts.

Compare unlike fractions

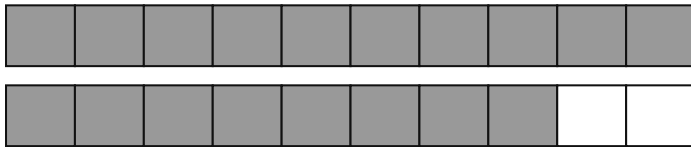
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5. Compare $18/10$ $\underline{\hspace{1cm}}$ $6/6$ of the same-sized whole.

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$18/10 > 6/6$. Rename both with denominator 60: $108/60$ and $60/60$. Now each piece is the same size, so compare 108 and 60.

$18/10$



$6/6$



6. Compare $10/12$ $\underline{\hspace{1cm}}$ $18/10$ of the same-sized whole. Which reason would help you solve this correctly?

Rename both fractions with a common denominator, or compare them with one half or one whole.

$10/12$



$18/10$



Compare unlike fractions

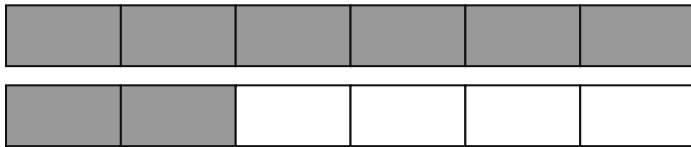
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7. Compare $\frac{8}{6}$ $\underline{\hspace{1cm}}$ $\frac{2}{3}$ meter lengths.

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$\frac{8}{6} > \frac{2}{3}$. Rename both with denominator 18: $\frac{24}{18}$ and $\frac{12}{18}$. Now each piece is the same size, so compare 24 and 12.

$\frac{8}{6}$



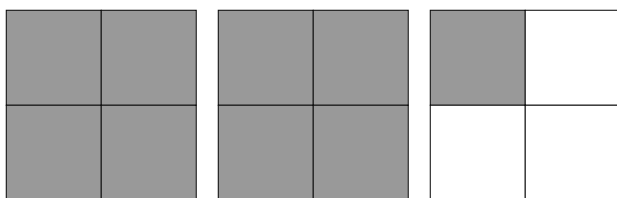
$\frac{2}{3}$



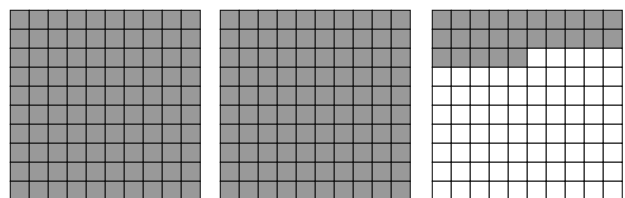
8. Fill in the missing numerator: $\frac{9}{4} = \frac{?}{100}$.

225

$\frac{9}{4} = \frac{(9 \times 25)}{(4 \times 25)} = \frac{225}{100}$. The whole and the shaded amount stay the same.



Each square is one whole, with 4 equal parts.



Each square is one whole, with 10 rows of 10 hundredths.