

FRACTIONS

STEPS TO ADD/SUBTRACT FRACTIONS

1. Convert Mixed Fractions
2. Find Common Denominator
3. Add/Sub (Keep Denom. Same)
4. Simplify

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EXAMPLES

$\frac{2}{4} + \frac{1}{4}$ <p style="text-align: center;">same</p> $\frac{3}{4}$	$2\frac{2}{6} + \frac{2}{4}$ <p style="text-align: center;">NOT SAME</p> $\frac{14}{6} + \frac{2}{4}$ <p style="text-align: center;">NOT SAME</p> $\frac{28}{12} + \frac{6}{12}$ $= \frac{34}{12} \approx \frac{17}{6}$	$4\frac{4}{6} - 2\frac{6}{4}$ <p style="text-align: center;">NOT SAME</p> $\frac{16}{12} - \frac{12}{12}$ $= \frac{4}{12} \approx \frac{1}{3}$
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STEPS TO MULTIPLY FRACTIONS

1. Convert Mixed Fractions
2. Multiply Across Top + Bottom
3. Simplify

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EXAMPLES

$\frac{2}{4} \rightarrow \frac{1}{2}$ $= \frac{2}{16} \approx \frac{1}{8}$	$2\frac{2}{6} + \frac{2}{4}$ <p style="text-align: center;">NOT SAME</p> $\frac{14}{6} \rightarrow \frac{2}{4} = \frac{28}{24}$ $\approx \frac{7}{6}$
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STEPS TO DIVIDE FRACTIONS

1. Convert Mixed Fractions
2. Keep - Change - Flip
3. Multiply Across Top & Bottom
4. Simplify

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EXAMPLES

$\frac{3}{8} \div \frac{1}{4}$ <p style="text-align: center;">K C F</p> $\frac{3}{8} \cdot \frac{4}{1}$ $\frac{12}{8} \approx \boxed{1\frac{1}{2}}$	$2\frac{3}{8} \div \frac{1}{4}$ <p style="text-align: center;">x</p> $\frac{19}{8} \div \frac{1}{4}$ <p style="text-align: center;">C F</p> $\frac{19}{8} \cdot \frac{4}{1} = \frac{76}{8}$ $\approx \boxed{9\frac{1}{2}}$
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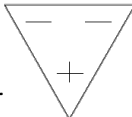
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INTEGERS

MULTIPLYING & DIVIDING

SAME SIGN = POSITIVE

DIFFERENT SIGNS = NEGATIVE



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EXAMPLES

<p>a) $(-32) \div (-2)$</p> <p>SAME = +</p> $\boxed{16}$	<p>b) $(-14) \div 7$</p> <p>Diff. = Neg.</p> $\boxed{-2}$	<p>c) $(6)(-3)$</p> <p>Diff. = Neg.</p> $\boxed{-18}$
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INTEGERS

Addition:
 Same Signs = Add & Keep Sign
 Ex.
 $2 + 4 = 6$ $-1 + -2 = -3$

Different Signs = Subtract & Keep Sign of Bigger Number
 Ex.
 $4 + -2 = +2$ $-3 + 2 = -1$
 $4 - 2 = 2$ $3 - 2 = 1$

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INTEGERS

Subtraction:
Leave Change Change

Then follow same rules for addition!

Ex.
 $2 - (-2) = 4$ $-2 - 4 = -6$ $4 - 7 = -3$
 $2 + 2 = 4$ $-2 + -4 = -6$ $4 + (-7) = -3$
 $7 - 4 = 3$

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EXAMPLES

a) $(-7) + (-2)$ SAME: keep $= -9$	b) $(-7) + 4$ Add Diff = keep sig $7 - 4 = 3$ $= -3$	c) $6 - (-3)$ Sub: LLL $6 + 3$ $= 9$
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