

Section 3.2

Section 3.2 Adding Rational Numbers

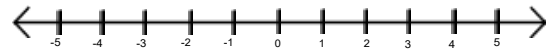
Review

Example 1: Add the following.

Remember to start at the first integer.

Go right on the number line to add a positive.

Go left on the number line to add a negative number.



a) $(-1) + (+2)$

b) $(-7) + (+4)$

c) $-2 + (-6)$

d) $(-2) + (-1)$

e) $(-6) + (-4)$

f) $(+8) + (-12)$

g) $(+5) + (-19)$

h) $(-5) + 3 + (-9)$

i) $7 + (-2) + (-7) + (+4)$

Is there a way to determine whether or not the answers to these sums will be positive or negative without using a number line?

If the signs are the same:

If the signs are different:

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Example 2: Add the decimal numbers.

a) $(-1.3) + (2.1)$

on a number line:



b) $(+1.9) + (1.2)$

c) $(-2.8) + (-6.5)$

d) $(-7.3) + (3.1)$

e) $(2.4) + (-1.7)$

f) $(-3.5) + 6.3$

g) $(-4.1) + (-3.1)$

h) $0.67 + (-0.83)$

i) $-1.5 + 1.25$

j) $-0.583 + 0.625$

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Example 3: Add the fractions.

a) $\frac{-7}{9} + \frac{5}{9}$

b) $\frac{2}{5} + \frac{-3}{5}$

Remember to:

- get common denominators
- change to improper fractions when necessary
- write answers in lowest terms

c) $\frac{-7}{8} + \frac{3}{4}$

d) $-3\frac{1}{3} + 2\frac{5}{6}$

e) $1\frac{1}{2} + \left(-2\frac{1}{3}\right)$

f) $\frac{3}{8} + \frac{7}{6}$

g) $\frac{-3}{2} + \frac{1}{6}$

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Example 4: Complete these word problems. Your answer must include an addition sentence.

a) A guardrail needs to be exactly 19.77 m long. A contractor has 3 pieces measuring 2,21 m, 9.14 m, and 3.21 m. Does she have enough to complete the guardrail?

b) Peter estimates that it takes him $\frac{1}{4}$ hour to prepare the dough, $\frac{1}{10}$ hour to grate the cheese, $\frac{1}{3}$ hour to prepare the toppings, and $\frac{2}{5}$ hour to bake the pizza. What fraction of time does it take Peter in total to prepare the pizza? How many minutes is this??