

Section 3.3 Subtracting Rational Numbers

Review

Example 1: Subtract the following.

To subtract rational numbers we **ADD THE OPPOSITE**. Every subtraction problem can be rewritten as an addition problem.

a) $(+5) - (+3)$

b) $7 - (-4)$

c) $-4 - (-2) - (+3)$

d) $(-1.39) - (+2.41)$

e) $(+0.23) - (-1.46)$

f) $(-8.93) - (+1.25)$

g) $3.34 - (-1.16)$

h) $\frac{5}{7} - \frac{-3}{7}$

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i) $\frac{-4}{5} - \left(\frac{-1}{2}\right)$

j) $-1\frac{1}{4} - \left(-2\frac{2}{3}\right)$

k) $1\frac{1}{6} - \frac{3}{4}$

Example 2: Complete these word problems. Your answer must include a subtraction sentence.

a) The temperature in St. John's is $6.5^{\circ}C$. In Corner Brook it is $8^{\circ}C$ colder. What is the temperature in Corner Brook?

b) A piece of pipe is 146.3 cm long. A piece 13.7 cm is cut off. How long is the remaining piece?

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- c) A person climbs $12\frac{2}{3}$ meters above the water to the top of a cliff.
He dives into the water and reaches $-3\frac{1}{6}$ meters below the surface.
What is the difference in these heights?

- d) Which expression has the same answer as $-2.3 - (-3.9)$?

A) $-2.3 + (-3.9)$

B) $2.3 - (-3.9)$

C) $-2.3 - (+3.9)$

D) $-2.3 + (+3.9)$

- e) Determine the missing number in each subtraction sentence.

$$2.5 - \underline{\quad} = 3.8$$

$$\underline{\quad} - \frac{-3}{10} = \frac{2}{5}$$