Grade 9 Warm Up

Put the following fractions in order from least to greatest.

1)

$$\frac{-11}{15}, \frac{-2}{7}, \frac{-21}{22}, \frac{-1}{5}, \frac{-1}{10}$$

-0.73 -0.28 -0.954 -0.2 -0.1

$$\frac{-21}{22}, \frac{-11}{15}, \frac{-2}{7}, \frac{-1}{5}, \frac{-1}{10}$$

Grade 9 Warm Up

Determine each sum.

1) $\frac{-5}{6} + \left(\frac{-2}{5}\right)$

3) $-1\frac{2}{3} + \left(-3\frac{1}{5}\right)$

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

b) On December 17th, the temperature was 2.1°C less than (colder than) that of December 18th. What was the temperature on the 17th?

$$\frac{-5}{6} + \left(\frac{-2}{5}\right)$$

6, 12, 18, 24, (30)
5, 10, 15, 20, 25, (30)

$\frac{-25}{30} + \frac{-12}{30}$

$\boxed{\frac{-37}{30} = -1\frac{7}{30}}$

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

$\frac{32}{12} + \frac{15}{12}$

$\frac{47}{12} = 3\frac{11}{12}$

3) $-1\frac{2}{3} + \left(-3\frac{1}{5}\right)$

$-\frac{5}{3} + \left(-\frac{16}{5}\right)$

$-\frac{25}{15} + \left(\frac{-48}{15}\right)$

$\frac{-73}{15} = -4\frac{13}{15}$

4) On December 18th, the temperature in Miramichi was -21.6°C. By noon the next day, the temperature increased by 3.7°C.

a) What was the temperature at noon on December 19th?

$-21.6 + 3.7 = -17.9°C$

b) On December 17th, the temperature was 2.1°C less than (colder than) that of December 18th. What was the temperature on the 17th?

$-21.6 - 2.1 = -23.7°C$

$-21.6 + (-2.1)$

Any Homework Questions?

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11(acegi) (Without calculator)
13, 16, 17, 18, 19(a, c), 20(ac)

#17. a) 45.50 (earn)
22.5025
−15.77 (spent)
−33.10

b) $45.50 + 22.25 + (-15.77) + (-33.10)$

c) $18.88

18. $(-545.50) + (-978.44) + 2115.70 + (-888.00) + 2570.40 + (-2540.30)$

$= -266.04$

20) $-\frac{3}{4} + \square = \frac{7}{8}$

$-\frac{6}{8} + \boxed{\frac{13}{8}} = \frac{7}{8}$

c) $\square + \boxed{\frac{-5}{2}} = 3\frac{1}{8}$

$\square + \left(\frac{-5}{2}\right) = \frac{25}{8}$

$\boxed{\frac{45}{8}} + \left(\frac{-20}{8}\right) = \frac{25}{8}$

Section 3.3

Subtracting Rational Numbers

When subtracting Rational Numbers you must have a ...

Common Denominator

Ex) $\frac{13}{7} - \frac{4}{7} =$

Same Denominators

Subtracting Fractions

↳ need common denominator!

You try ...

(Remember to write all solution in simplest form)

1) $\frac{21}{2} - \frac{24}{2}$

$\frac{-3}{2}$

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

2) $\frac{-25}{13} - \frac{16}{13}$

$\frac{-41}{13}$

$-3\frac{2}{13}$

3) $\frac{11}{4} - \frac{5}{4}$

$\frac{6}{4}$

$1\frac{1}{2}$

Oh, what to do when the denominators are different???

I Know this one!!!!

When denominators are different you have to find a **"common denominator"**

By determining the LCM

Lowest Common Multiple

(of the denominators)

Subtract the following rational numbers

$$\frac{13}{7} - \frac{4}{3}$$

Look at the multiples of each denominator

Find the LCM

7 3

$\times 3$ $\times 7$

$\left(\frac{39}{21} - \frac{28}{21}\right)$

$= \frac{11}{21}$

Class/Homework

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