

12.2

Adding Rational Numbers

Today's Learning Goals:

- Add rational numbers.
- Solve real-life problems.

Do Now

Tell whether the number belongs to each of the following number sets: *rational numbers*, *integers*, *whole numbers*.

- 1) -5
- 2) 0
- 3) -2.16
- 4) 12

Adding Integers Review

$$-8 + -5 =$$

$$-7 + -12 =$$

SAME SIGN

- Ignore the signs
- Add numbers
- Put sign back

$$-8 + 17 =$$

$$6 + -13 =$$

DIFFERENT SIGNS

- Ignore the signs
- Subtract
- Put sign back of number that "looks" the biggest

Add. & Sub. Fractions & MN Review

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

4) $\frac{5}{6} - \frac{1}{4}$

Add. & Sub. Fractions & MN Review

5) $25\frac{1}{3} + 16\frac{2}{5}$

6) $73\frac{2}{3} - 54\frac{1}{2}$

PRACTICE

7) $58 - 49\frac{3}{5}$

8) $19 - 17\frac{5}{6}$

Sub. Mixed Numbers with Borrowing

9) $29\frac{1}{2} - 26\frac{5}{6}$

Adding Pos. & Neg. Fractions & MN

$$1) -\frac{1}{6} + \left(-\frac{5}{12}\right)$$

SAME SIGN
•Ignore the signs
•Add numbers
•Put sign back

DIFFERENT SIGNS
•Ignore the signs
•Subtract
•Put sign back of number
that "looks" the biggest

Adding Pos. & Neg. Fractions & MN

$$2) -\frac{4}{5} + \frac{3}{20}$$

SAME SIGN
•Ignore the signs
•Add numbers
•Put sign back

DIFFERENT SIGNS
•Ignore the signs
•Subtract
•Put sign back of number
that "looks" the biggest

Adding Pos. & Neg. Fractions & MN

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

$$4) -\frac{5}{6} + \left(-\frac{1}{4}\right)$$

Adding Pos. & Neg. Fractions & MN

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

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

PRACTICE

$$7) -5\frac{3}{4} + \left(-4\frac{5}{6}\right)$$

$$8) 1\frac{2}{5} + \left(-3\frac{1}{2}\right)$$

PRACTICE

$$9) \frac{9}{10} + (-3)$$

$$10) -6\frac{1}{3} + \frac{20}{3}$$

Adding Pos. & Neg. Decimals

$$11) -4.05 + 7.6$$

SAME SIGN
•Ignore the signs
•Add numbers
•Put sign back

DIFFERENT SIGNS
•Ignore the signs
•Subtract
•Put sign back of number
that "looks" the biggest

Adding Pos. & Neg. Decimals

$$12) -8.15 + (-4.3)$$

SAME SIGN
•Ignore the signs
•Add numbers
•Put sign back

DIFFERENT SIGNS
•Ignore the signs
•Subtract
•Put sign back of number
that "looks" the biggest

Adding Pos. & Neg. Decimals

13) $0.65 + (-2.75)$

SAME SIGN

- Ignore the signs
- Add numbers
- Put sign back

DIFFERENT SIGNS

- Ignore the signs
- Subtract
- Put sign back of number that "looks" the biggest