

NAME: Key

Mr. Tallman

DATE: _____

PERIOD: _____

Homework #14 - Adding & Subtracting Unlike Fractions

Add or subtract. Show all work. Be sure to write each fraction in simplest form.

1. $\frac{2}{5} + \frac{3}{10}$

$$\frac{4}{10} + \frac{3}{10}$$

$$\frac{7}{10}$$

2. $\frac{1}{3} + \frac{2}{9}$

$$\frac{2}{9} + \frac{2}{9} = \frac{4}{9}$$

3. $\frac{5}{9} + (-\frac{1}{6})$

$$\frac{20}{36} + (-\frac{6}{36})$$

$$\frac{14}{36} \div 2 = \frac{7}{18}$$

4. $\frac{3}{4} - \frac{5}{6}$

$$\frac{9}{12} - \frac{10}{12}$$

$$\frac{9}{12} + (-\frac{10}{12}) = -\frac{1}{12}$$

5. $\frac{4}{5} - (-\frac{1}{3})$

$$\frac{12}{15} - (-\frac{5}{15})$$

$$\frac{12}{15} + \frac{5}{15} = \frac{17}{15}$$

6. $1\frac{2}{3} - (-\frac{4}{9})$

$$\frac{35}{9} - (-\frac{4}{9})$$

$$\frac{15}{9} - (-\frac{4}{9})$$

$$\frac{15}{9} + \frac{4}{9} = \frac{19}{9}$$

$$2\frac{1}{9}$$

7. $-\frac{7}{10} - (-\frac{1}{2})$

$$-\frac{7}{10} - (-\frac{5}{10})$$

$$-\frac{7}{10} + \frac{5}{10} = -\frac{2}{10} \div 2 = -\frac{1}{5}$$

8. $2\frac{1}{4} + 1\frac{3}{8}$

$$\frac{9}{4} + \frac{11}{8}$$

$$\frac{18}{8} + \frac{11}{8} = \frac{29}{8}$$

$$3\frac{5}{8}$$

9. $3\frac{3}{4} - 1\frac{1}{3}$

$$\frac{15}{4} - \frac{4}{3}$$

$$\frac{45}{12} - \frac{16}{12}$$

$$\frac{45}{12} + (-\frac{16}{12})$$

$$\frac{29}{12}$$

$$2\frac{5}{12}$$

<p>10. $-1\frac{1}{5} - 2\frac{1}{4}$</p> $\frac{6 \times 4}{5 \times 4} - \frac{9 \times 5}{4 \times 5}$ $\frac{24}{20} - \frac{45}{20}$ $\frac{24}{20} + \left(-\frac{45}{20}\right)$ $\frac{-21}{20} = \left(-\frac{1}{20}\right)$	<p>11. $-2\frac{4}{9} - \left(-1\frac{1}{3}\right)$</p> $\frac{-22}{9} - \left(-\frac{4}{3}\right) \times \frac{2}{2}$ $\frac{-22}{9} + \frac{12}{9}$ $\frac{-10}{9} = \left(-\frac{1}{9}\right)$	<p>12. $3\frac{3}{5} - 2\frac{2}{3}$</p> $\frac{18 \times 3}{5 \times 3} - \frac{8 \times 5}{3 \times 5}$ $\frac{54}{15} - \frac{40}{15}$ $\left(\frac{14}{15}\right)$
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13) James is $58\frac{2}{3}$ inches tall and his brother Nate is $60\frac{1}{2}$ inches tall. How much taller is Nate than James? Write your answer as a mixed number.

$$60\frac{1}{2} - 58\frac{2}{3}$$

$$\frac{12 \times 3}{2 \times 3} - \frac{176 \times 2}{3 \times 2}$$

$$\frac{363}{6} - \frac{352}{6}$$

$$= \frac{11}{6}$$

$$6\frac{1}{6}$$

$\frac{11}{6}$ inches taller

Review

Solve and check the following equations.

<p>14) $-9 + x = 10$</p> $\cancel{-9} + x = 10$ $x = 19$ <p>Check</p> $-9 + x = 10$ $-9 + 19 = 10$ $10 = 10 \checkmark$	<p>15) $8x = -64$</p> $\frac{8x}{8} = \frac{-64}{8}$ $x = -8$ <p>Check</p> $8x = -64$ $8(-8) = -64$ $-64 = -64 \checkmark$	<p>16) $h - 13 = -9$</p> $h - 13 + 13 = -9 + 13$ $h = 4$ <p>Check</p> $h - 13 = -9$ $4 - 13 = -9$ $-9 = -9 \checkmark$	<p>17) $\frac{p}{5} = (10) - 5$</p> $p = -50$ <p>Check</p> $\frac{p}{5} = 10$ $\frac{-50}{5} = 10$ $10 = 10 \checkmark$
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