Math ~~20~~ 19 Quiz # 5 Name Key

1. A board $\frac{7}{8}$ inch thick is nailed to a piece of wood $2\frac{1}{4}$ inches thick. What is the total thickness?

Method 1:

Improper: $\frac{7}{8} + 2\frac{1}{4} = \frac{7}{8} + \frac{9}{4} = \frac{7}{8} + \frac{18}{8}$

$= \frac{25}{8} = 3\frac{1}{8}$

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or Method 2: Keep mixed

$2\frac{1}{4} \rightarrow 2\frac{2}{8}$

$+\frac{2}{8} \rightarrow +\frac{1}{8}$

$2\frac{9}{8} = 2 + 1\frac{1}{8} = 3\frac{1}{8}$

2. Solve the equation:

$3 + \frac{2}{7}x = -2$

Method 1

$3 + \frac{2}{7}x = -2$

$-3 \qquad -3$

$\frac{7}{2}\left(\frac{2}{7}\right)x = -5\left(\frac{7}{2}\right)$

$x = \frac{-35}{2}$

Method 2

LCD is 7

$3(7) + (7)\frac{2}{7}x = -2(7)$

$21 + 2x = -14$

$-21 \qquad -21$

$\frac{2x}{2} = \frac{-35}{2}$

$x = \frac{-35}{2}$