Mastery Algebra 1   **Practice Mastery Quiz 1-5/1-6**   Name: _____ KEY _____
NO CALCULATOR
Show all your work clearly!

1. Find each sum.

   a. $-5+(-3) = \boxed{-8}$ b. $-16+12 = \boxed{-4}$

2. Find each difference.

   a. $7-(-5) = 7+5 = \boxed{12}$ b. $-2-(5) = \boxed{-7}$

3. Evaluate $-2a-5b-c$ for $a=-1, b=2$ and $c=-3$

   $-2(-1)-5(2)-(-3)$
   $= 2-10+3$
   $= -8+3 = \boxed{-5}$

4. What is the value of $\dfrac{a}{b}$ when $a=-\dfrac{2}{3}$ and $b=\dfrac{4}{5}$?

   $\dfrac{-\frac{2}{3}}{\frac{4}{5}} = -\dfrac{2}{3} \cdot \dfrac{5}{4} = -\dfrac{10}{12} = \boxed{-\dfrac{5}{6}}$

5. Find each product or quotient.

   a. $\dfrac{2}{9} \div \dfrac{4}{3}$

   $\dfrac{2}{9} \cdot \dfrac{3}{4} = \dfrac{6}{36} = \boxed{\dfrac{1}{6}}$

   b. $\left(-\dfrac{5}{12}\right) \div \left(\dfrac{10}{6}\right)$

   $-\dfrac{5}{12} \cdot \dfrac{6}{10} = -\dfrac{30}{120}$

   $= \boxed{-\dfrac{1}{4}}$

   c. $\dfrac{3}{4}\left(2\dfrac{1}{3}\right) = \dfrac{3}{4} \cdot \dfrac{7}{3} = \dfrac{21}{12}$

   $= \boxed{\dfrac{7}{4}}$

6. A miner starts 50 feet below the ground. Then he went 20 feet lower, came back up 35 feet, and then back down 5 more. What integer describes his depth?

   $-50-20+35-5$
   $= -70+35-5$
   $= -35-5$
   $= \boxed{-40}$