Readiness Quiz

Key

Show *all* your work algebraically for each and simplify. No credit is given without supporting work. There are *two* sides to this quiz.

1. [5] Simplify the following:

$\frac{2}{3} \cdot \frac{4}{5} - 5^2$

$\frac{8}{15} - 25$

$\frac{8}{15} - \frac{375}{15}$

$(.533) - 25$

$-\frac{367}{15}$

≈ -24.467

$25 = \frac{375}{15}$

$\frac{6x^2 - 6}{9x + 9} = \frac{6(x^2-1)}{9(x+1)}$ factored +1.5

$= \frac{6(x+1)(x-1)}{9(x+1)}$ cancel +1

$= \frac{6(x-1)}{9}$

$= \frac{3 \cdot 2(x-1)}{3 \cdot 3}$

$= \frac{2(x-1)}{3}$

2. [3] Use algebra to solve for q in

$$\frac{1}{q+1} - 1 = 5$$

$+1 \quad +1$

$(q+1)\ \frac{1}{q+1} = 6\ (q+1)$

$1 = 6q + 6$

$-6 \quad -6$

$-5 = 6q$

$-\frac{5}{6} = q \approx -.8\overline{3}$

started (+.5)
order of op (+1)
handle den (+1)
got it (+1.5)

3. [2] Find the slope of the line that contains the points $(3, 4)$ and $(7, 13)$.