Name:_____ Block:___

Quiz: Review (II). Chapters 1 and 2

Group A.

Practice

There are 5 questions in this quiz, each of equal value.
Standard time for the test is 15 minutes .
No calculator is allowed. (accommodation excepted)

Question 1:
Simplify.

$$5x - [(6 - x) - (4 - 3x)] \div 2 + 3$$

$6 - x - 4 + 3x = 2 + 2x$

$= 5x - [2 + 2x] \div 2 + 3 =$

$= 5x - 1 - x + 3 = \boxed{4x + 2}$

Question 2:

Solve for y.

$$4 - (x + 3) = 13 - 5(2x - 3)$$

$4 - x - 3 = 13 - 10x + 15$

$1 - x = 28 - 10x$

$9x = 27$

$\boxed{x = 3}$

check: $4 - (3 + 3) \stackrel{?}{=} 13 - 5(2 \cdot 3 - 3)$

$4 - 6 \stackrel{?}{=} 13 - 5(6 - 3)$

$-2 \stackrel{?}{=} 13 - 5 \cdot 3$

$-2 \stackrel{?}{=} -2$ ✓

Question 3:

Simplify the following expressions so they include only positive exponents.

1. $(-3x^{-4})^2$

$(-3)^2 (x^{-4})^2 = \frac{9}{x^8}$

2. $\left(\frac{x^4}{3}\right)^{-2}$

$\frac{(x^4)^{-2}}{(3)^{-2}} = \frac{9}{x^8}$

3. $(3 \cdot 10^{-4}) \times (4 \cdot 10^6)$

$(3 \cdot 4) \times (10^{-4} \cdot 10^6) =$

$\boxed{12 \times 10^2 = 1.2 \times 10^3}$

Question 4:

Simplify the following expression so ~~they~~ it includes only positive exponents.

$$\left(\frac{y^2 \cdot 3 \cdot x^{-2}}{15 \cdot x^6 \cdot y^{-6}}\right)^3$$

$\left(\frac{3}{15} \cdot \frac{x^{-2}}{x^6} \cdot \frac{y^2}{y^{-6}}\right)^3 =$

$= \left(\frac{1}{5}\right)^3 \cdot \left(\frac{1}{x^8}\right)^3 \cdot (y^8)^3 =$

$= \frac{1}{125} \cdot \frac{1}{x^{24}} \cdot y^{24} =$

$= \boxed{\frac{y^{24}}{125 \cdot x^{24}}}$

Question 5.a:

Solve the equation $A = P + Prt$, for r.

$A - P = Prt$

$\boxed{\frac{A-P}{Pt} = r}$

Question 5.b:

Solve the equation $A = P + Prt$, for P.

$A = P(1 + rt)$

$\boxed{\frac{A}{(1+rt)} = P}$

=== End ====