# 1.4 – Rewriting Equations Practice

KEY

Solve for the indicated variable in the parenthesis. Show all of your work!

1. $P = Irt$ $(t)$

$\frac{P}{Ir} = \frac{Irt}{Ir}$

$\boxed{\frac{P}{Ir} = t}$

2. $y = 4x - 2$ $(x)$

$+2 \quad +2$

$\frac{y+2}{4} = \frac{4x}{4}$

$\boxed{\frac{y+2}{4} = x}$ OR $\boxed{x = \frac{1}{4}y + \frac{1}{2}}$

3. $P = 2(L + W)$ $(W)$

$P = 2L + 2W$

$-2L \quad -2L$

$\frac{P - 2L}{2} = \frac{2W}{2}$

$\boxed{\frac{P-2L}{2} = W}$

4. $A = 4r^2$ $(r)$

Hint: square root!

$\frac{A}{4} = \frac{4r^2}{4}$

$\sqrt{\frac{A}{4}} = \sqrt{r^2}$

$\boxed{\sqrt{\frac{A}{4}} = r}$

5. $V = \pi r^2 h$ $(h)$

$\frac{V}{\pi r^2} = \frac{\pi r^2 h}{\pi r^2}$

$\boxed{\frac{V}{\pi r^2} = h}$

6. $I \cdot R = \frac{E}{I} \cdot I$ $(I)$

$\frac{IR}{R} = \frac{E}{R}$

$\boxed{I = \frac{E}{R}}$

7. $3 \cdot A = \frac{a+b+c}{3} \cdot 3$ $(a)$

$3A = a + b + c$

$-b \quad -b$

$3A - b = a + c$

$-c \quad -c$

$\boxed{3A - b - c = a}$

8. $V = LWH$ $(L)$

$\frac{V}{WH} = \frac{LWH}{WH}$

$\boxed{\frac{V}{WH} = L}$

9. $D = RT$ $(T)$

$\frac{D}{R} = \frac{RT}{R}$

$\boxed{\frac{D}{R} = T}$

10. $N \cdot P = \frac{R-C}{N} \cdot N$ $(R)$

$NP = R - C$

$+C \quad +C$

$\boxed{NP + C = R}$

11. $R \cdot \frac{x+z-w}{R} = 1 \cdot R$ $(Z)$

$x + z - w = R$

$-x \quad -x$

$z - w = R - x$

$+w \quad +w$

$\boxed{z = R - x + w}$

12. $3x - 5y - 11 = 0$ $(y)$

$+5y \quad +5y$

$\frac{3x}{5} - \frac{11}{5} = \frac{5y}{5}$

$\boxed{\frac{3}{5}x - \frac{11}{5} = y}$

SAT REVIEW

**MULITPLE CHOICE**

If n is a constant and 2a + 5 = 3na + 5 for all values of a, what is the value of n?

(A) 5
(B) 3
(C) 2
(D) $\frac{3}{2}$
(E) $\frac{2}{3}$

$2a + 5 = 3na + 5$

$-5 \quad -5$

$\frac{2a}{a} = \frac{3na}{a}$

$\frac{2}{3} = \frac{3n}{3}$

$\boxed{\frac{2}{3} = n}$

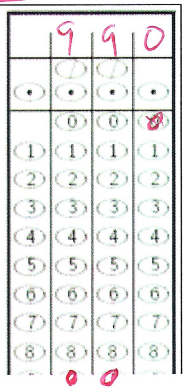
**GRID IN**

What is the greatest 3-digit integer that has a factor of 10?

~~999~~ ← largest 3-digit

~~998~~

~~997~~

⋮

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