Name
Date
Course

Evaluating Algebraic Expressions (Part II) Homework

① x^2+1-x, $x=-3$ — 13

② $-y^3+2y-8$, $y=-3$ — 13

③ $1-\frac{2-z}{3}$, $z=14$ — 5

④ $3x-10-4x^3$, $x=-2$ — 16

⑤ $5(2y+4)^2-y$, $y=-1$ — 21

⑥ $7-(9z+1)^2$, $z=1$ — −93

⑦ x^2-4x-x, $x=-2$ — 14

⑧ $\frac{6}{y}-5y+2$, $y=3$ — −11

⑨ $-(-3+x^2y)^2+xy$, $x=2, y=-1$ — −51

⑩ $\frac{-z-4}{2}+19$, $z=-4$ — 19

⑪ Find P below if $m=10$ and $v=13$.

$P=mv$ — $P=130$

⑫ Find A below if $W=8$, $L=1$, and $H=3$.

$A=2LH+2LW+2HW$ — $A=70$

⑬ Find V below if $\pi=3.14$ and $r=2$. You may use a calculator and round to the nearest hundredth. — $V\approx 33.49$

$V=\frac{4\pi r^3}{3}$

⑭ Find P below if $n=3$, $R=6$, $T=1$, and $V=6$.

$P=\frac{nRT}{V}$ — $P=3$

⑮ Find d below if $V=2$, $V_0=-1$, and $t=3$.

$d=\left(\frac{V+V_0}{2}\right)t$ — $d=3/2$

⑯ Find y below if $m=4$, $x=-3$, and $b=7$.

$y=mx+b$ — $y=-5$

⑰ Find y below if $x=5$ and $m=-2$.

$y=m(x-6)+4$ — $y=6$

⑱ Find y if $a=-2$, $b=3$, $c=0$, and $x=2$.

$y=ax^2+bx+c$ — $y=-2$

⑲ Find y if $h=-3$, $x=-1$, $k=1$, and $A=3$.

$y=A(x-h)^2+k$ — $y=13$

Check the following solutions. If a solution works, write "yes." If it does not work, write "no." As with all other problems in your homework, show all work.

⑳ $2x-3x-9=4x+1$, $x=-1$ — $-8\neq -3$, No

㉑ $1-2+y=\frac{y}{3}+7$, $y=3$ — $2\neq 8$, No

㉒ $-3z-8z+5=9-7z$, $z=-1$ — $16=16$, Yes

(23) $-7x+2x+5-3x=4x+2x, x=0$ $\boxed{5\neq 0, \text{NO}}$

(24) $4+8y-12y=12, y=-2$ $\boxed{12=12, \text{Yes}}$

(25) $-\frac{z}{9}+4=-6, z=81$ $\boxed{-5\neq -6, \text{NO}}$

(26) $7x+1=3-\frac{2x}{5}, x=2$ $\boxed{15\neq \frac{11}{5}, \text{NO}}$

(27) $-y+4=5y+y-3, y=1$ $\boxed{3=3, \text{Yes}}$