Order of Operations #1

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1) $9-7+3-4\cdot 5$

$9-7+3-20$

$2+3-20$

$5-20$

-15

If it's all addition and subtraction, you can rearrange the terms:

$9-7+3-20 \rightarrow$ $9+3=12$, $20+7=27$, $27-12=-15$

2) $29-5+12\div 3(2)$

$29-5+4\cdot 2$

$29-5+8$

$24+8$

32

3) $7^2+5(-8)+\sqrt{64}\div 4^1$

$49+5(-8)+8\div 4$

$49-40+8\div 4$

$49-40+2$

$9+2$

11

4) $2\sqrt{36}-8[7+(6-2)]$

$2\cdot 6-8[7+4]$

$12-8\cdot 11$

$12-88$

-76

$88-12=-76$

5) $48\div 6(-2)$

$8(-2)$

-16

6) $1^8-3(4+5)$

$1-3\cdot 9$

$1-27$

-26

7) $(4+9)^2+2\cdot 3^2$

$(13)^2+2\cdot 9$

$169+2\cdot 9$

$169+18$

187

$13\times 13=39, 130$; $169+18=187$

8) $2[30\div(1-7)]$

$2[30\div(-6)]$

$2\cdot -5$

-10

9) $2^3-30\div(5)(-2)-\sqrt{16+9}$

$8-30\div(5)(-2)-\sqrt{25}$

$8-30\div(5)(-2)-5$

$8-6(-2)-5$

$8+12-5$

$20-5$

15

$2\cdot 2\cdot 2=4\cdot 2=8$

10) $5^0+3[7^2-4(3+5)]-10$

$1+3[7^2-4\cdot 8]-10$

$1+3[49-4\cdot 8]-10$

$1+3[49-32]-10$

$1+3\cdot 17-10$

$1+51-10$

$52-10$

42

$49-32=17$; $17\times 3=51$

11) $2\sqrt{50-1}+3[5-3(4+6)]$

$2\sqrt{49}+3[5-3\cdot 10]$

$2\cdot 7+3[5-30]$

$14+3[-25]$

$14-75$

-61

$75-14=-61$

12) $4^3-2(6^0-14)+10^2\div 25$

$64-2(1-14)+100\div 25$

$64-2(-13)+4$

$64+26+4$

$90+4$

94

$4\cdot 4\cdot 4=16\cdot 4=64$; $64+26=90$