1. In a recent activity, algebra students were asked to *evaulate an expression using correct order of operations*. Below is the work for three different students. Each student has made **one** error. **Your job is to**:
   - *Demonstrate how to solve the problem correctly, showing each step carefully in the space provided below. (Do this first, if you like.)*
   - ***Circle** the ONE <u>mistake</u> you find in each student's work. Cirle only the <u>first</u> mistake. Be sure that whatever you circle is <u>wrong</u>!*
   - ***Explain** clearly what the student did wrong, and what the student should have done instead.*

Your work:

$12+36\div6-5+4\bullet3^2$

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Aren's work:

$12+36\div6-5+4\bullet3^2$

$=12+36\div6-5+4\cdot6$

$=12+6-5+24$

$=18-5+24$

$=13+24$

$=37$

Explanation of error:

Brie's work:

$12+36\div6-5+4\bullet3^2$

$=12+36\div6-5+4\cdot9$

$=48\div6-5+4\cdot9$

$=8-5+36$

$=3+36$

$=39$

Explanation of error:

Chandler's work:

$12+36\div6-5+4\bullet3^2$

$=12+36\div6-5+4\cdot9$

$=12+6-5+4\cdot9$

$=12+6-5+36$

$=18-5+36$

$=18-41$

$=-23$

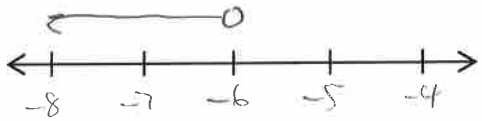
Explanation of error:

2. In a recent activity, algebra students were asked to solve and graph a complicated inequality. Below is the work for three different students. Each student has made **one** error. **Your job is to**:
   - *Demonstrate how to solve the problem correctly, showing each step carefully in the space provided below.*
   - *Circle the ONE mistake you find in each student's work. Cirle only the first mistake. Be sure that whatever you circle is wrong!*
   - *Explain clearly what the student did wrong, and what the student should have done instead.*

Your work:

$$4(n-3)+8>8n-2(n-4)$$

$n < -6$



Ariel's work:

$$4(n-3)+8>8n-2(n-4)$$

$$4n-12+8>8n-2n+8$$

$$4n-4>6n+8$$

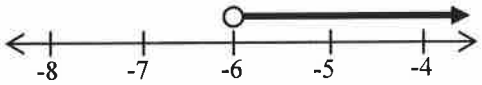
$$-6n \quad -6n$$

$$-2n-4>8$$

$$+4 \quad +4$$

$$\frac{-2n}{-2}>\frac{12}{-2}$$

$$n>-6$$



Explanation of error:

Barry's work:

$$4(n-3)+8>8n-2(n-4)$$

$$4n-12+8>8n-2n+8$$

$$4n-4>6n+8$$

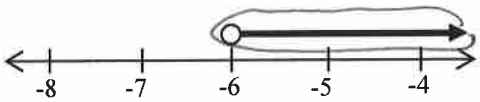
$$-4n \quad -4n$$

$$-4>2n+8$$

$$-8 \quad -8$$

$$\frac{-12}{2}>\frac{2n}{2}$$

$$-6>n$$



Explanation of error:

Carlos' work:

$$4(n-3)+8>8n-2(n-4)$$

$$4n-12+8>8n-2n-8$$

$$4n-4>6n-8$$

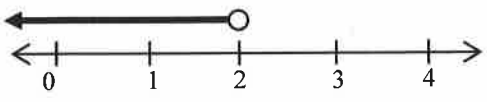
$$-4n \quad -4n$$

$$-4>2n-8$$

$$+8 \quad +8$$

$$\frac{4}{2}>\frac{2n}{2}$$

$$2>n$$



Explanation of error: