

While

Boolean

```
while (Boolean)
{
  ;
  ;
  ;
  ;
}
```

Until

Boolean

```
until (Boolean)
{
  ;
  ;
  ;
  ;
}
```

```
String ans = "";  
double x = 0;  
double total = 0;  
int count = 0;  
ans = JOptionPane.showInputDialog(null, "#");  
x = Double.parseDouble(ans);  
while (x >= 0) do {  
    total = total + x;  
    count++;  
    ans = JOptionPane.showInputDialog(null, "#");  
    x = Double.parseDouble(ans);  
}  
double avg = total / count;
```

Priming
the
loop

```
int count = 0;
double x = 0;
double total = 0;
String ans = "";
{
    ans = JOptionPane.showInputDialog("#");
    x = Double.parseDouble(ans);
    total = total + x;
    count++;
}
until (x < 0);
double avg = total / count;
```

```
for (int count=0; count<=5; count++) {
```

```
    _____;
```

```
    _____;
```

```
    _____;
```

```
    _____;
```

```
    _____;
```

```
}
```

$$h = 10$$

$$w = 10$$

$$GP =$$

$$10 \times 10$$

$$\text{\$}100$$

$$h = 42$$

$$w = 10$$

$$GP =$$

$$40 \times 10 = 400$$

$$2 \times 10 \times 1.5 = 30$$

$$\text{\$}430$$

$$h = 52$$

$$w = 10$$

$$GP =$$

$$40 \times 10 = 400$$

$$10 \times 10 \times 1.5 = 150$$

$$2 \times 10 \times 2 = 40$$

$$\text{\$}590$$

Pseudocode

declare hours, wage, gross pay, net pay,
over40, over50, name ...

input name

input hours

input wage

Decide if hours is over 40 less than 50

over 40 = hours - 40;

hours = 40

Decide if hours is over 50

over 50 = hours - 50

over 40 = 10

hours = 40

else

hours = hours

gross = hours X wage + over 40 X 1.5 X
wage + over 50 X 2 X wage

Decide if gross \geq 500

health = 1% of Gross

net = Gross - health

else

health = 0.5% of Gross

net = Gross - health