NAME _____

(1) (5 pts.) For each of the following loops, write out how many times it will loop. (This is the same as the number of lines each will print out.)

```
int x = 0;
while ( x < 8 )
{
    System.out.println( x + 1 );
    x++;
}
```

(a) **Answer:** _____

```
int y = 1;
while ( y < 8 )
{
    System.out.println( y );
    y = y + 2;
}
```

(b) **Answer:** _____

```
int w = 1;
while ( w < 20 )
{
    System.out.println( w );
    w = w * 2;
}
```

(c) **Answer:** _____

```
int v = 0;
while ( v < 10 )
{
    System.out.println( v );
    v = v + 1 / 2;
}
```

(d) **Answer:** _____

```
            int z = 5;
            while ( z < 5 )
            {
                System.out.println( z );
                z = z * 2;
            }
```

(e) **Answer:** _____

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(2) **(5 pts.)** Write out the exact output of the following code.

```
for ( int i = 1; i <= 10; i++ )
{
    System.out.print( i + ": " );
    if ( i == 5 || i == 10 )
    {
        System.out.println( "OK" );
    }
    else if ( i % 2 == 1 )
    {
        System.out.println( "THIS" );
    }
    else
    {
        System.out.println( "THAT" );
    }
}
```