1. How many bits/bytes are needed to store a color picture that is 200 pixels wide and 300 pixels high? Assume color is represented using the RGB technique and that no special compression technique is used. Express your answer as approximate number of KB or MB, etc., as appropriate. Show your work and fill in the answers below:

# pixels

# bytes

# bits

2. Two corners of a square drawn using the Java coordinate system have coordinates (10, 20) and (30, 40). What are the coordinates of the other two corners?

3. Given the following declarations, what result is stored in each of the assignment statements below?

```java
int num = 4;
double val = 10.0;
int iResult;
double fResult;

a. fResult = val / num;

b. iResult = (int) (val / num);

c. iResult = (int) (val / num * 100);

d. fResult = (int) val / num * 100;
```
1. How many bits/bytes are needed to store a color picture that is 300 pixels wide and 400 pixels high? Assume color is represented using the RGB technique and that no special compression technique is used. Express your answer as approximate number of KB or MB, etc., as appropriate. Show your work and fill in the answers below:

\[
\text{\# pixels} \quad \underline{\text{_________}}
\]

\[
\text{\# bytes} \quad \underline{\text{_________}}
\]

\[
\text{\# bits} \quad \underline{\text{_________}}
\]

2. Fill in the missing numbers so that the following lines of code draw a smiley face:

```java
page.setColor(Color.yellow);
page.fillOval(50, 50, 40, 40); // face
page.setColor(Color.black);
page.drawArc(60, 70, 20, 10, 190, 160); // smile
page.fillOval(60, 60, 5, 5); // left eye
page.fillOval( , , , ); // right eye
```

3. Given the following declarations, what result is stored in each of the assignment statements below?

```java
int num = 10;
double val = 4.0;
int iResult;
double fResult;
```

a. \[
\text{iResult} = \frac{5}{\text{num}};
\]

b. \[
\text{fResult} = \frac{\text{val} \times 3}{\text{num}};
\]

c. \[
\text{fResult} = \left(\text{double}\right) \frac{5}{\text{num}};
\]

d. \[
\text{fResult} = \frac{\text{val}}{\text{num}};
\]