

Choose the best answer.

1.) Which concept has to do with strings such as "Mr." and "Minich"?

- A. Concatenation B. Boolean logic C. Collision Detection D. Boundary Cases

2.) Which code segment is valid?

- A. `picThing.Right = 100` B. `If (picThing.Bottom >> 100) Then ...`
C. `picThing.Bottom = 0` D. `If (picThing.Right + 10 > 100) Then ...`

3.) A line formed by the endpoints (10, 10) and (100, 100) is a _____.

- A. vertical line. B. horizontal line. C. diagonal line with positive slope. D. diagonal line with negative slope.

4.) The _____ method executes at regular intervals of time.

- A. `KeyDown` B. `MouseClicked` C. `Form_Load` D. `Timer_Tick`

5.) In which direction will the statement `picPlayer.Left -= 5` animate `picPlayer`?

- A. to the right B. to the left C. up the screen D. down the screen

6.) Once you have initially placed a label on a form, you generally can reposition it during _____ time.

- A. design B. run C. interface D. none of the above

7.) The _____ method can be used to display a form.

- A. `Hide` B. `Visible` C. `Display` D. `Show`

8.) The form that the user will review to see what version of a program he/she is using is the _____.

- A. form named `Form1` B. about form C. directions form D. module

9.) Which of the following is true?

- A. `Math.Floor(3.5) = 4`
B. You can play a wav audio file with the `TextToSpeech` function.
C. You can use a module variable in any method of a form.
D. Both B and C are true.

10.) The statement `num -= 3` is equivalent to which of the following statements?

- A. `num = num - 3` B. `num - 3 = num` C. `num -- 3` D. `num - 3`

11.) The abbreviation RGB refers to the color model used by programmers to create a custom color by mixing shades of _____.

- A. red, green, and brown B. red, gray, and blue C. red, green, and blue D. red, gray, and brown

12.) A `Timer` object can be used to animate the following types of objects except:

- A. `PictureBox` B. `Menu` C. `Label` D. `Button`

- 13.) A Timer's _____ method can be used to activate the Timer.
 A. Interval B. Modal C. Start D. Enabled
- 14.) It is good style to store _____ files used in a VB program in the project's Resources folder.
 A. graphic B. header C. metadata D. interface sketch
- 15.) A _____ can be passed to a function.
 A. message box B. method C. module D. parameter
- 16.) A _____ is often used to cause a While loop to exit.
 A. flag variable B. global variable C. call statement D. return value
- 17.) Visual Basic can convert text into a spoken voice using the concept of _____.
 A. Siri B. Form_Load C. Words to Speech D. Text to Speech

Simplify the exercises below based on the following variables.

x1 = 9 x2 = 170 y1 = 120 y2 = 200 a = 3 b = 10
 side1 = 3 side2 = 4 num = -15 price = 11.50 distance = 12.5 c = 2

- _____ 18.) Math.Abs(num)
- _____ 19.) Math.Sqrt(x1)
- _____ 20.) Math.Round(price + 0.5)
- _____ 21.) Math.Max(x1 * 9, x2)
- _____ 22.) Math.Floor(distance - 0.6)
- _____ 23.) Math.Pow(c, a)
- _____ 24.) Math.Max(y1, y2) - Math.Max(x1, x2)
- _____ 25.) Math.Floor(distance - num)

```
e.Graphics.DrawLine(blackPen, 100, 0, 100, 150) ' line 1
```

26.) Complete the If statement so it detects a collision between picPlayer and Line 1.

```
If (picPlayer.Top _____ And picPlayer.Bottom _____ And picPlayer.Right _____ And picPlayer.Left _____) Then  
    MessageBox.Show("collision")  
End If
```

Write a Statement or Code Segment – Write Visual Basic code that fulfills the following tasks. You must use any specific variable and object names given in the exercise.

27.) Write a statement that would be used to play a wav audio file named “gong.wav”.

28.) Complete the Tick method for a Timer named tmrEnemy so that picEnemy moves across the form from top to bottom and wraps around so that when it goes off the bottom edge of the screen it wraps in on the top edge. Assume the form has a height of 300 pixels.

```
Private Sub tmrEnemy_Tick(. . .)
```

```
End Sub
```

29.) Write an If statement that turns off a Timer named tmrEnemy and hides the current form when the variable timeOfGame is less than or equal to zero.

30.) Write a single If Else statement that performs the following tasks. If the variable num is evenly divisible by 3, display the number "3" in a message box. But if the variable num is not evenly divisible by 3 then display the word "NO" in a message box.

31.) Write a statement that uses the `Rnd` function to compute and store a pseudorandom integer between or including 4 and 11 in the variable `num`.

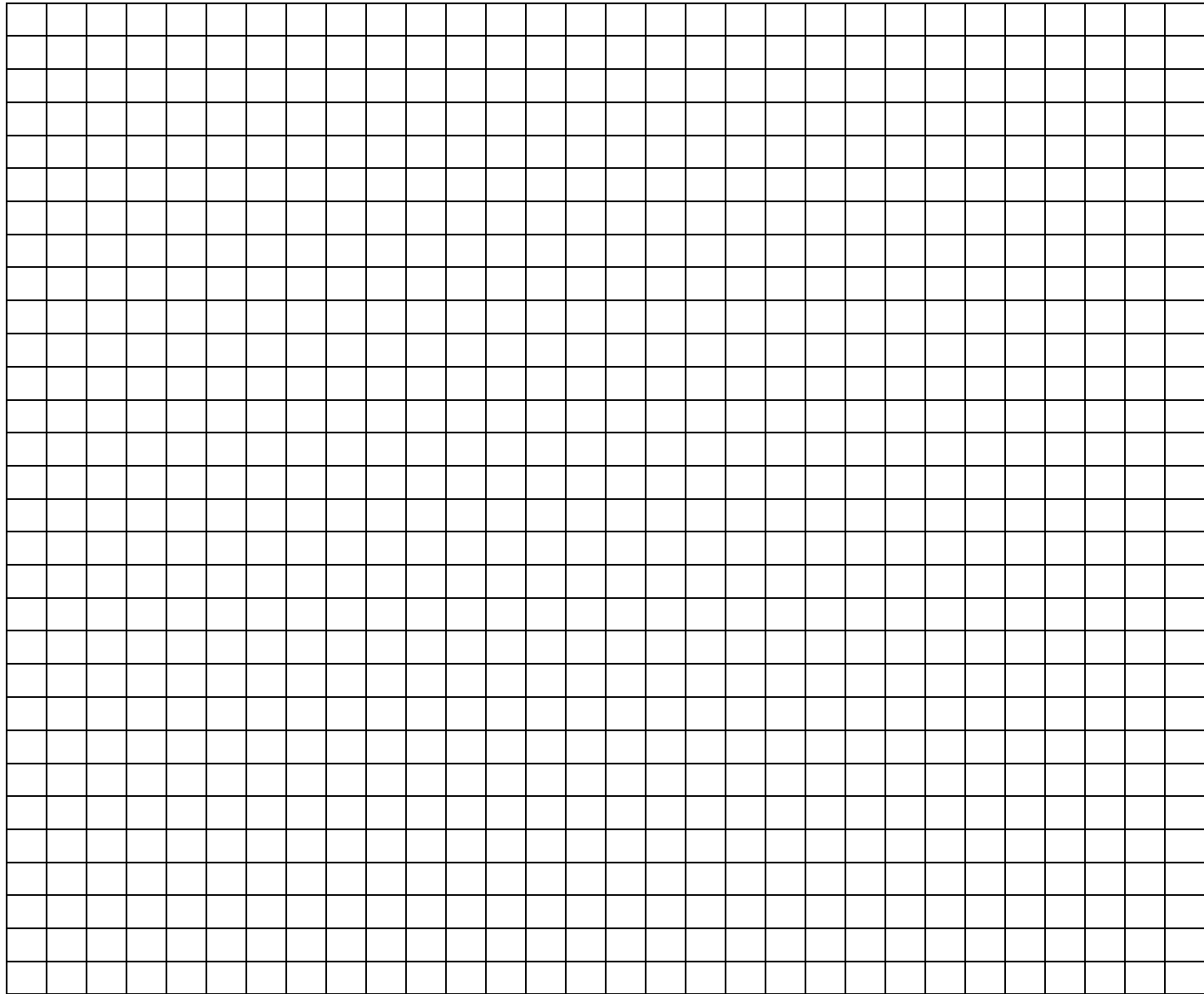
32.) Write a line of code that would start a `Timer` named `tmrDoStuff`.

33.) Write a complete method named `EndGame` that can be used in any program to properly end (i.e. exit) the program.

34.) On the next page neatly sketch the designs formed by the following code. **Label the endpoints of the line segments.**

```
e.Graphics.DrawLine(Pens.Black, 10, 150, 100, 150)
e.Graphics.DrawRectangle(Pens.Black, 20, 20, 100, 100)
e.Graphics.DrawEllipse(Pens.Black, 20, 20, 100, 100)
```

Number 34 continued



Find and correct the errors in the following code segment. Errors include coding style, spacing, documentation (comments), and incorrect logic. You can assume that all lines starting with Private Sub are correct.

```
'Moves Player through maze
Private Sub Form1_KeyDown(...)
    If (e.KeyCode = Keys.Right Or e.KeyCode = Keys.D Or e.KeyCode = Keys.NumPad6) Then      'moves Right
        picPlayer.Left -= 5
    If (e.KeyCode = Keys.Left Or e.KeyCode = Keys.A Or e.KeyCode = Keys.NumPad4) Then      'moves Left
        picPlayer.Left += 5
    If (e.KeyCode = Keys.Down Or e.KeyCode = Keys.X Or e.KeyCode = Keys.NumPad2) Then      'moves Down
        picPlayer.Top += 5
    Else (e.KeyCode = Keys.Up Or e.KeyCode = Keys.W Or e.KeyCode = Keys.NumPad8) Then      'moves Up
        picPlayer.Bottom -= 5
    End If

End Sub

Private Sub btnGameOver_Click(...)
    App.End()
End Sub

Private Sub mnuFileReset_Click(...)
    ResetGame()
End Sub

Private Sub GameReset()
    picPlayer.Right = 5
    picPlayer.Bottom = 155
End Sub

End Class
```