

Note: Correct responses are based on Java, J2sdk v 6.0, from Sun Microsystems, Inc. All provided code segments are intended to be syntactically correct, unless otherwise stated (i. e. `error` is an answer choice) and any necessary Java 2 Standard Packages have been imported. Ignore any typographical errors and assume any undefined variables are defined as used.

<b>QUESTION 1</b>	
$110_2 + 100_2 = ?$ A. $111_2$ B. $1010_2$ C. $1111_2$ D. $11_{10}$ E. $11_{13}$	
<b>QUESTION 2</b>	
What is output by the code to the right? A. 1              B. 2              C. 3              D. 11              E. 101	<pre>int a = 1; a = a + 1; System.out.println(a);</pre>
<b>QUESTION 3</b>	
What is output by the code to the right? A. -12              B. 15              C. -5              D. 50 E. There is no output due to a syntax error.	<pre>Integer b = 5; b = b * (-2 + b); System.out.println(b);</pre>
<b>QUESTION 4</b>	
What is output by the code to the right? A. 123              B. 1234              C. 01              D. 012              E. 0123	<pre>for(int c=0; c&lt;3; c=c+1)     System.out.print(c);</pre>
<b>QUESTION 5</b>	
What is output by the code to the right? A. 6              B. -1              C. 8              D. 9              E. 7	<pre>String d = "a long time till state"; System.out.print(d.indexOf('t'));</pre>
<b>QUESTION 6</b>	
What is output by the code to the right? A. 4.0              B. 6.0              C. 2.0              D. 8.0              E. 9.0	<pre>double[] eRay = {2,4,6,8,10}; eRay[3]++; System.out.println(eRay[3]);</pre>
<b>QUESTION 7</b>	
What is output by the code to the right? A. yes              B. no              C. bool              D. true              E. false	<pre>boolean bool = true; System.out.println(bool &amp;&amp; bool);</pre>
<b>QUESTION 8</b>	
What is output by the code to the right? A. 10              B. 01              C. 11              D. 0              E. 1	<pre>int fNum = 31; if(fNum/2 &gt; 15)     System.out.println(0); System.out.println(1);</pre>
<b>QUESTION 9</b>	
Which of the following replaces <b>&lt;*1&gt;</b> in the code to the right to correctly complete the constructor? A. <code>public void</code> B. <code>public static void</code> C. <code>public</code> D. <code>public static final void</code> E. more than one of these	<pre>public class Great {     private int num;     &lt;*1&gt; Great(int n)     {         num=n;     } }</pre>
<b>QUESTION 10</b>	
What is output by the code to the right? A. 7              B. 12              C. 2              D. 8              E. 5	<pre>System.out.println(7   5);</pre>

<b>QUESTION 11</b>	
What is output by the code to the right? A. 25      B. 25.0      C. 10.0      D. 10      E. 5	<code>System.out.println(Math.pow(5,2));</code>
<b>QUESTION 12</b>	
What is output by the code to the right? A. 5.1      B. 5.12      C. 5.13      D. 5.10      E. 5.128	<code>System.out.printf("%.2f",5.128);</code>
<b>QUESTION 13</b>	
What is output by the code to the right? A. 3      B. 1      C. 2      D. 0      E. 4	<code>int[][] hMat = {{1,4,3},{2,5,6}}; System.out.println(hMat.length);</code>
<b>QUESTION 14</b>	
What is output by the code to the right? A. 28      B. 37      C. 42      D. 47      E. 32	<code>int iSum=0; for(int i=2; i&lt;14; i=i+2){     iSum += i; } System.out.println(iSum);</code>
<b>QUESTION 15</b>	
What is output by the code to the right? A. uil      B. uilcs      C. cs      D. rocks      E. srocks	<code>String j = "uilcsrocks"; System.out.print(j.substring(5));</code>
<b>QUESTION 16</b>	
What is output by the code to the right? A. 72134      B. 9134      C. 917      D. 17 E. There is no output due to a syntax error.	<code>System.out.print(7 + 2 + "1" + 3 + 4);</code>
<b>QUESTION 17</b>	
What is output by the code to the right? A. 6.0      B. 7.0      C. 7.5      D. 6.5      E. 7	<code>System.out.println(2 * 3.25);</code>
<b>QUESTION 18</b>	
What is output by the code to the right? A. false      B. true      C. stop      D. 0      E. 1	<code>boolean k = true, m = false; System.out.println(k &amp;&amp; (m ^ k));</code>
<b>QUESTION 19</b>	
What is output by the code to the right? A. 21      B. 15      C. 35      D. 0      E. 7	<code>ArrayList&lt;Integer&gt; n; n = new ArrayList&lt;Integer&gt;(); n.add(7); n.add(0,5); n.add(3); int ans; ans = n.get(0) * n.get(n.size()-1); System.out.println(ans);</code>
<b>QUESTION 20</b>	
What is output by the code to the right? A. 2.5      B. 2      C. 2.0      D. 2.25      E. 3.0	<code>double dbl = 18/8; System.out.println(dbl);</code>
<b>QUESTION 21</b>	
What is output by the code to the right? A. 13.5      B. 13      C. 13.0      D. 9.5      E. 9.0	<code>double pNum = 1.5; while(pNum &lt; 11){     pNum += 4; } System.out.println(pNum);</code>

<p><b>QUESTION 22</b></p> <p>What is returned by the method call <code>what (25)</code> ?</p> <p>A. 7      B. 8      C. 9      D. 10      E. -1</p>	<pre>public static int what(int x) {     if(x&gt;-5 &amp;&amp; x&lt;10)         return 7;     else if(x&gt;10 &amp;&amp; x&lt;23)         return 8;     else if(x&gt;23 &amp;&amp; x&lt;38)         return 9;     else         return -1; }</pre>
<p><b>QUESTION 23</b></p> <p>What is returned by the method call <code>what (10)</code> ?</p> <p>A. 7      B. 8      C. 9      D. 10      E. -1</p>	
<p><b>QUESTION 24</b></p> <p>What is output by the line marked <code>//1</code> in the client code to the right?</p> <p>A. 14 B. 3 C. 8 D. 4 E. 7</p>	<pre>public class Box {     private int size;      public Box(int s){         setSize(s);     }      public void setSize(int s){         size = s;     }      public int getSize(){         return size;     } }  public class DoubleBox extends Box {     public DoubleBox(int d){         super(d*2);     }      public void setSize(int s){         super.setSize(s*2);     } }  //////////////////////////////////// //client code Box one = new Box(3); out.println(one.getSize());    //1 DoubleBox two = new DoubleBox(2); out.println(two.getSize());    //2 two.setSize(7); out.println(two.getSize());    //3</pre>
<p><b>QUESTION 25</b></p> <p>What is output by the line marked <code>//2</code> in the client code to the right?</p> <p>A. 14 B. 3 C. 8 D. 4 E. 7</p>	
<p><b>QUESTION 26</b></p> <p>What is output by the line marked <code>//3</code> in the client code to the right?</p> <p>A. 14 B. 3 C. 8 D. 4 E. 7</p>	
<p><b>QUESTION 27</b></p> <p>What is output by the line marked <code>//1</code> in the code to the right?</p> <p>A. ad      B. 11      C. cf      D. null      E. 33</p>	<pre>Queue&lt;String&gt; queue; queue = new LinkedList&lt;String&gt;(); PriorityQueue&lt;String&gt; pQueue; pQueue = new PriorityQueue&lt;String&gt;();  String[] stuff = {"ad","11","cf","33"}; for(String s : stuff){     queue.add(s);     pQueue.add(s); }  out.println(queue.remove());    //1 out.println(pQueue.remove());    //2</pre>
<p><b>QUESTION 28</b></p> <p>What is output by the line marked <code>//2</code> in the code to the right?</p> <p>A. ad      B. 11      C. cf      D. null      E. 33</p>	

<p><b>QUESTION 29</b></p> <p>What is returned by the method call <code>wow(7)</code> ?</p> <p>A. 22      B. 19      C. 10      D. 14      E. 25</p>	<pre>public static int wow(int x) {     if(x&gt;0)         return 2 + wow(x-1);     else         return x/2; }</pre>
<p><b>QUESTION 30</b></p> <p>What is returned by the method call <code>wow(11)</code> ?</p> <p>A. 22      B. 19      C. 10      D. 14      E. 25</p>	
<p><b>QUESTION 31</b></p> <p>What is output by the code to the right?</p> <p>A. 242      B. 338      C. 249      D. 236      E. 288</p>	<pre>String orig = "200"; int guess = Integer.parseInt(orig, 12); System.out.println(guess);</pre>
<p><b>QUESTION 32</b></p> <p>In the code to the right, what type of <code>Collection</code> must <code>stuff</code> be so that all <code>val</code> will be printed out in natural order?</p> <p>A. Stack      B. LinkedList C. Set      D. TreeSet E. HashSet</p>	<pre>public void why(Collection stuff) {     for(Object val : stuff)         System.out.println(val); }</pre>
<p><b>QUESTION 33</b></p> <p>What is output by the line marked <code>//1</code> in the code to the right?</p> <p>A. dog      B. 7337      C. cat      D. null      E. 3</p>	<pre>Stack&lt;String&gt; stack; stack = new Stack&lt;String&gt;(); stack.push("cat"); stack.push("7337"); stack.push("dog");  ArrayList&lt;String&gt; list; list = new ArrayList&lt;String&gt;(stack); boolean same = stack.equals(list);  System.out.println(stack.pop()); //1  System.out.println(same); //2  System.out.println(stack); //3</pre>
<p><b>QUESTION 34</b></p> <p>What is output by the line marked <code>//2</code> in the code to the right?</p> <p>A. false      B. true      C. 0      D. 1      E. null</p>	
<p><b>QUESTION 35</b></p> <p>What is output by the line marked <code>//3</code> in the code to the right?</p> <p>A. [cat, 7337, dog] B. [cat, dog] C. [cat, 7337] D. [cat, dog, 7337] E. [dog, 7337]</p>	
<p><b>QUESTION 36</b></p> <p>What is output by the line marked <code>//1</code> in the code to the right?</p> <p>A. 17      B. 43      C. 24      D. 7      E. 8</p>	<pre>Integer count = 0; Integer[] intRay = {17,24,43,7,8};  for(Integer i : intRay) {     if(i.intValue()%2==0)         count++; }  out.println(intRay[2%3]); //1  out.println(count); //2</pre>
<p><b>QUESTION 37</b></p> <p>What is output by the line marked <code>//2</code> in the code to the right?</p> <p>A. 1      B. 2      C. 3      D. 4      E. 5</p>	

<p><b>QUESTION 38</b></p> <p>What is output by the code to the right?</p> <p>A. 2147483645                      B. 2147483647</p> <p>C. -2                                  D. -10</p> <p>E. 2147483646</p>	<pre>System.out.println(-5&gt;&gt;&gt;1);</pre>
<p><b>QUESTION 39</b></p> <p>What is output by the line marked //1 in the code to the right?</p> <p>A. w              B. a              C. h              D. wa</p> <p>E. an empty string</p>	<pre>String x = "weareherewearehere"; String[] list = x.split("[ere]");  out.println(list[1]);           //1 out.println(list.length);      //2</pre>
<p><b>QUESTION 40</b></p> <p>What is output by the line marked //2 in the code to the right?</p> <p>A. 11              B. 8              C. 10              D. 6              E. 7</p>	