

## JavaScript Dog Age Calculator Instructions

Dogs mature at a faster rate than human beings. We often say a dog's age can be calculated in "dog years" to account for their growth compared to a human of the same age. In some ways we could say, time moves quickly for dogs — 8 years in a human's life equates to 45 years in a dog's life. How old would you be if you were a dog?

Here's how you convert your age from "human years" to "dog years":

- The first two years of a dog's life count as 10.5 dog years each.
- Each year following equates to 4 dog years.

Before you start doing the maths in your head, let a computer take care of it! With your knowledge of math operators and variables, use JavaScript to convert your human age into dog years.

1	Create a variable named <code>myAge</code> , and set it equal to your age as a number.  Write a comment that explains this line of code.
Hint	Use the <code>const</code> keyword to create a variable named <code>myAge</code> .
2	Create a variable named <code>earlyYears</code> and save the value <code>2</code> to it. Note, the value saved to this variable will change.  Write a comment that explains this line of code.
Hint	Use the following syntax:  <code>let earlyY</code>
3	Use the multiplication assignment operator to multiply the value saved to <code>earlyYears</code> by <code>10.5</code> and reassign it to <code>earlyYears</code> .
Hint	Use the following syntax:  <code>earlyYears *= 10.5;</code>
4	Since we already accounted for the first two years, take the <code>myAge</code> variable, and subtract <code>2</code> from it.  Set the result equal to a variable called <code>laterYears</code> . We'll be changing this value later.  Write a comment that explains this line of code.
Hint	Use the following equation to help you:  <code>let laterYears = myAge - 2;</code>
5	Multiply the <code>laterYears</code> variable by <code>4</code> to calculate the number of dog years accounted for by your later years. Use the multiplication assignment operator to multiply and assign in one step.  Write a comment that explains this line of code.

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Hint	<p>Use the following equation to help you:</p> <pre>laterYears *= 4;</pre>
6	<p>If you'd like to check your work at this point, print <code>earlyYears</code> and <code>laterYears</code> to the console. Are the values what you expected?</p> <p>Check off this task when you're ready to move on.</p>
Hint	<p>Use <code>console.log()</code> to print to the console.</p>
7	<p>Add <code>earlyYears</code> and <code>laterYears</code> together, and store that in a variable named <code>myAgeInDogYears</code>.</p> <p>Write a comment that explains this line of code.</p>
8	<p>Let's use a string method next.</p> <p>Write your name as a string, call its built-in method <code>.toLowerCase()</code>, and store the result in a variable called <code>myName</code>.</p> <p>The <code>toLowerCase</code> method returns a string with all lowercase letters.</p> <p>Write a comment that explains this line of code.</p>
Hint	<p>Use the <code>toLowerCase</code> method like below:</p> <pre>'Grace Hopper'.toLowerCase();</pre>
9	<p>Write a <code>console.log</code> statement that displays your name and age in dog years. Use string interpolation to display the value in the following sentence:</p> <p>My name is NAME. I am HUMAN AGE years old in human years which is DOG AGE years old in dog years.</p> <p>Replace <code>NAME</code> with <code>myName</code>, <code>HUMAN AGE</code> with <code>myAge</code>, and <code>DOG AGE</code> with <code>myAgeInDogYears</code> in the sentence above.</p> <p>Write a comment that explains this line of code.</p>
Hint	<pre>console.log(`My name is \${myName}. I am \${myAgeInDogYears} years old`)</pre>
10	<p><b>Stretch &amp; Challenge</b></p> <p>Great work! You can convert any human age to dog years. Try changing <code>myAge</code> and see what happens.</p> <p>If you'd like extra practice, try writing this project without the <code>*=</code> operator.</p>
Hint	<p>8 human years = 45 dog years.</p> <p>22 human years = 101 dog years.</p> <p>You can multiply a variable <code>x</code> by <code>10</code> using either approach below:</p>

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x \*= 10;

or

x = x \* 10;