



# Making Decisions - Page 1

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Name

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Date

Write the code to examine an integer variable named "x" and display the word "Negative" if the number is less than zero, otherwise display the word "Positive".

Write the code to examine an integer variable named "x" and display "Divisible by 5" if the number is divisible by 5, otherwise display "Not Divisible by 5".

**Hint:** Use the % function to see if there is a remainder when you divide by 5.

Write the code to check if a variable named "Mark" is less than zero or greater than one hundred, and if it is, the phrase "Mark out of range" should be displayed.

# Making Decisions - Page 2

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Name

\_\_\_\_\_

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## Train Track Safety System

On a bridge, four train tracks run parallel to each other. Sensors on each track determine which tracks have trains on them and set four different Boolean variables accordingly. The variables are named: track1, track2, track3 and track4. Recall that a Boolean variable can have one of two values: true or false. For example: if there is a train on track 1 then track1 is set to true, otherwise it is set to false.

Situation 1 ... Let's say the tracks are set up so closely that two trains cannot be on adjacent tracks without hitting each other. Write the code to display a message if trains are on adjacent tracks.

Situation 2 ... Let's say that the bridge has a weight restriction so that a maximum of three trains can be on the bridge at once. Write the code to display a message if there are four trains on the tracks.

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Situation 3 ... Let's say that the bridge has a weight restriction so that a maximum of two trains can be on the bridge at once. Write the code to display a message if there are three or more trains on the tracks.