**Solving Linear Equations using Flowcharts**

You will now use flowcharts to solve one-step and two-step linear equations. Apply the corresponding steps to the equation on the right side. Check your solution.

1. Solve$x-5.4=19.8$ $x-5.4=19.8$

|  |  |
| --- | --- |
|  |  *Check:* |

1. Solve:$x/4.6=3.5$ $x/4.6=3.5$

|  |  |
| --- | --- |
|  |  *Check:* |

1. Solve:$x+9=-5$ $x+9=-5$

|  |  |
| --- | --- |
|  |  *Check:* |

1. Solve$3x+4=-11$ $3x+4=-11$

|  |  |
| --- | --- |
|  | *Check:* |

1. Solve$2x-8=14$ $2x-8=14$

|  |  |
| --- | --- |
|  | *Check:* |

1. Solve $-2x+12=-20$ $-2x+12=-20$

|  |  |
| --- | --- |
|  |  *Check:* |

Model the situations below with a linear equation. For each problem, identify the unknown, create an equation, solve the equation using a flowchart, and then check your solution.

1. Kevin bought seven tickets to the Haunted Graveyard at Lake Compounce for $209.93. How much does one ticket cost?

Identify the unknown:

Equation:

|  |  |
| --- | --- |
|  |  *Check:* |

1. Verizon charges $18.75 per month for phone service and $0.08 per minute. Last month my bill was $33.63. How many minutes did I use?

Identify the unknown:

Equation:

|  |  |
| --- | --- |
|  |  *Check:* |

1. Jose spent $177.69 of his birthday money. He bought an iPod for $159 and 21 songs from iTunes. How much did each song cost?

Identify the unknown:

Equation:

|  |  |
| --- | --- |
|  |  *Check:* |

1. Your school band needs to buy new recording equipment. The equipment will cost $3000. The band has collected $1200 from previous fundraisers. If the band sells sandwiches at $5 each, how many sandwiches must they to sell to raise the remaining funds?

Identify the unknown:

Equation:

|  |  |
| --- | --- |
|  |  *Check:* |