Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_\_\_\_\_

**NOTES: Introduction to the T-Chart**

**Part 1: Using Our Method**

|  |  |
| --- | --- |
| 1. If you are asked, “how many days are in 13 weeks?” what do you need to know to solve this problem? How would you solve this problem?
	1. What units are you converting between?
	2. What is the relationship between these units?

**Notes:** | 1. If you are asked, “how many weeks make up 112 days?” what do you need to know to solve this problem? How would you solve this problem?
	1. What units are you converting between?
	2. What is the relationship between these units?

**Notes:** |

**Part 2: Conversion Factors**

Notes:

**For example:**

* A conversion factor \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ so therefore, there should be an\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
**For example:**
* We can also write a conversion factor as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
**For example:**

**Practice. Write out the conversion factor and the conversion fraction for the following units:**

1. dimes and dollars (same \_\_\_\_\_\_\_\_\_\_\_\_\_\_)
2. days and years (same \_\_\_\_\_\_\_\_\_\_\_\_\_\_)
3. feet and inches (same \_\_\_\_\_\_\_\_\_\_\_\_\_\_)
4. yards and feet (same \_\_\_\_\_\_\_\_\_\_\_\_\_\_)
5. seconds and minutes (same \_\_\_\_\_\_\_\_\_\_\_\_)
6. hours and days (same \_\_\_\_\_\_\_\_\_\_\_\_\_\_)

**Part 3: T-Chart & Conversions**

We can use a structure called a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to help us \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ using \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Using the T-Chart: Let’s solve this problem. How many days are in 32 weeks?**

*To set up the t-chart:*

1.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Given** |  (Given unit and information) (Desired Unit)

|  |  |
| --- | --- |
|  |  |
|  |  (Same Unit as Given Unit) |

 |
| **Conversion Factor** |
| **Desired** |  | = |

*Solving the t-chart:*

 1.
 2.
 3.
 4.

2.) Charles is counting down the days until his next birthday so that he can get his drivers license. He knows his birthday is in 29 weeks. About how many days will Charles have to wait until he can become a licensed driver?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Given** |

|  |  |
| --- | --- |
|  |  |
|  |  |

 |
| **Conversion Factor** |
| **Desired** |  | = |

3.) Rhyan goes to baseball practice and Coach Hanselman makes him run 3.5 miles. If 5,280 feet are in 1 mile, how many feet did Rhyan have to run?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Given** |

|  |  |
| --- | --- |
|  |  |
|  |  |

 |
| **Conversion Factor** |
| **Desired** |  | = |

4.) Teja goes to dance practice for 65 minutes. Afterwards she wants to know how many steps she took. Choreographed dancer will take, on average, 3,250 steps in 45 minutes.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Given** |

|  |  |
| --- | --- |
|  |  |
|  |  |

 |
| **Conversion Factor** |
| **Desired** |  | = |

5.) While Mateo was *slowly* walking home, he found a bag full of 346 nickels. Excited with his new find, Mateo was wondering how many dollars that was.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Given** |

|  |  |
| --- | --- |
|  |  |
|  |  |

 |
| **Conversion Factor** |
| **Desired** |  | = |

**Multiple T-Charts**

6.) Lauryn had to run sprints at basketball practice. If her Coach made her run outside on the football field and sprint from end-zone to end-zone, how many inches did Lauryn have to run? A football field is 100 yards. One yard has 3 feet, and there are 12 inches in 1 foot.

7.) Jovan practices the piano for 125 minutes one day to get ready for a performance. How many days did he practice? (Hint: How many minutes are there in an hour? How many hours are there in a day?)

|  |  |
| --- | --- |
|  | **Given** |
| **Conversion Factor (Write 2!!)** |
| **Desired** |

|  |  |  |
| --- | --- | --- |
|  |  |  |
|  |  |  |

|  |  |
| --- | --- |
|  | **Given** |
| **Conversion Factor (Write 2!!)** |
| **Desired** |

|  |  |  |
| --- | --- | --- |
|  |  |  |
|  |  |  |

**8.) Challenge:** How many minutes are there in a week?

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |