**Algebra Concepts – Lesson 3-2 Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Part – Whole and Percentages**

Without a doubt you’ve thought about and worked with percentages during your life. 50% of American teenagers have after school jobs. A new game is on sale for 30% off. The president was elected by earning 61% of the vote. The part-whole model is a great way to visualize how “percent” works.

**From Whole to Part**

Remember from lesson 3-1 that the whole could be broken up into parts. The fraction tells you how many parts are in the whole and how many parts we have. With percents, the whole is always 100.

**The Whole is always 100.**

|-------------------------------------------100------------------------------------------|

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

How many parts are in the whole in the model above?

What is the value of each part?

Since percent is the number of parts in 100, what percent does one box represent?

And since we are talking about 1 box out of 4 parts, we can say that

$\frac{1}{4}$ = %

Use the same model above to answer these:

$\frac{2}{4}$ = % $\frac{3}{4}$ = % $\frac{4}{4}$ = %

**Guided Practice**

1.  =\_\_\_\_\_\_\_\_\_\_ %.

|--------------------------------------------100-----------------------------------------|

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

|----------------------?----------------------|

2.  = \_\_\_\_\_\_\_\_\_\_%

|-------------------------------------------100------------------------------------------|

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

|------------------?------------------|

Build your own model

3.  = \_\_\_\_\_\_\_\_\_\_%

4. 17 out of every 20 kids at Kennett ride the bus at least once a week. What percentage of Kennett students ride the bus once a week.