**Algebra Concepts – Lesson 3-1 Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Fractional Parts**

In Unit 2, you learned about the part-whole model using Singapore models. In Unit Three, you will discover that the part-whole model works well with important ideas in proportional reasoning. This lesson is about fractional parts.

**From Whole to Part**

Let’s start with the idea that  of the students in this class have jobs on weekends. If there are 15 students in the class, how many have jobs on weekends?

We start by setting up a fraction with 5 equal parts. Then we mark the total (or whole) as we did with earlier visual models.

|-------------------------------------------15--------------------------------------------|

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

To show the fraction , we mark off 2 of the 5 boxes. We put a question mark under the 2 boxes to show that this is information we want to know in order to answer the question.

|-------------------------------------------15--------------------------------------------|

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

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

students with jobs

What number goes in each box?

How many students have weekend jobs according to this problem?

**From Part to Whole**

Mr. Osborne was playing golf with Mr. Cicero last summer when he noticed that they had been out on the course for 2 hours. “We are only  of our way through the course,” Mr. Cicero remarked. At the rate that they were playing, how long would it take Mr. Osborne and Mr. Cicero to play the full round?

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

Why do we start with three boxes in our model?

How many of the boxes should be marked off to show ?

What do we put for the total in this situation?

total time for round

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

|  |  |  |
| --- | --- | --- |
| 2 |  |  |

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

time so far

Now let’s answer the question. If it takes 2 hours for Mr. Osborne and Mr. Cicero to play  of a round of golf, how much would it take them to play the full round?

**Guided Practice**

1. Find  of 40.

|--------------------------------------------40-------------------------------------------|

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

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

2.  of a number is 15. What is the number?

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

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

|-------------------------------15----------------------------------|

1. Find  of 20 using a model.

4.  of the people in this class went to Kennett Middle School. If 10 students in this class went to Kennett Middle School, how many

students are in the class?