

Grade Level / Content Area:	Grade 3-5 / Math - Fractions
Standards:	CCSS.MATH.CONTENT.5.NF.A.1 CCSS.MATH.CONTENT.5.NF.B.4.A
Concept/Topic to Teach:	Find Equivalent Fractions

## *I. Getting students set to learn Fractions*

**Introduction/Review;** What is a Fraction? *A comparison of one part to the whole set of parts.* Discuss the work with fractions the class has recently done.

**Anticipatory Set;** Demonstrate what is the numerator and what is the denominator of a fraction. Discuss what are equivalent fractions. Discuss how dividing (or multiplying) the numerator and denominator by the same number does not change the value of a fraction. Discuss how the fraction can be the same even if the total number of parts is very different. Discuss how to reduce fractions to their lowest common denominator – needed herein.

### **Objectives;**

- The students will be able to identify equivalent fractions.
- The students will be able to understand that the value of fractions does not change if you divide (or multiply) both the numerator and denominator by the same number by reviewing a problem they've completed with the teacher.

## *II. Instruction*

**Input and Modeling;** Go through the first two examples from the work sheet together. Explain the importance of listening to or reading the problem carefully before attempting to answer it. Ask the students to complete the remainder of the first worksheet page.

## *III. Checking for understanding*

**Checking Understanding;** Review the student's completed first worksheet pages and explain any errors.

**Guided Practice;** Have the students complete the second page of the worksheet.

## *IV. Independent practice – Hands-On Learning*

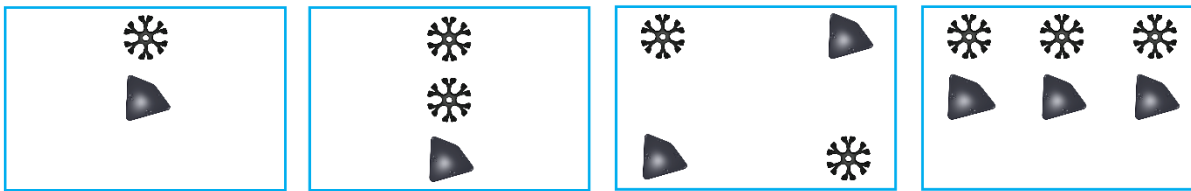
### **Independent Practice;**

Pass out the HyPars Educational kits to the students and explain these parts will be used to continue to learn more about fractions.

- From the HyPars Educational Kit parts, have each student make one group made up of connectors and a different number of HyPars. Ask the students what fraction of their group is Connectors and what fraction of their group is HyPars.
- Have the students assemble (connect) their Connectors and HyPars into an assembly.
- Ask the students to repeat telling what fraction of their assembly is Connectors and what fraction is HyPars.
- Upon confirmation of each student understanding the fractions of the first assembly correctly, have the students do a second example where the numerator (the Connectors) and denominator (the HyPars) have been divided (or multiplied) by the same number. Ask the students to identify what fraction of their new group is Connectors and what fraction is HyPars. Have the students assemble this second group of Connectors and HyPars. Ask the students which of their assemblies has the larger fraction of Connectors or are the fractions equivalent?
- Have the students disassemble their assemblies and put the parts away back into their HyPars Educational Kits.

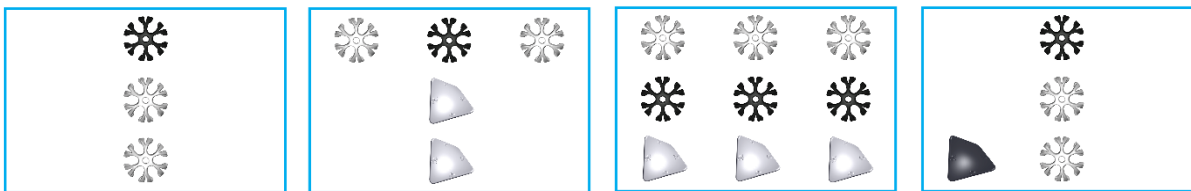
### Find Equivalent Fractions Worksheet

- 1) Write the fraction of Connectors in each Figure on the line below it, then,  
1a) Circle the Figures that are equivalent.



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- 2) Write the fraction of black Connectors in each Figure, then,  
2a) Circle the Figures that are equivalent.



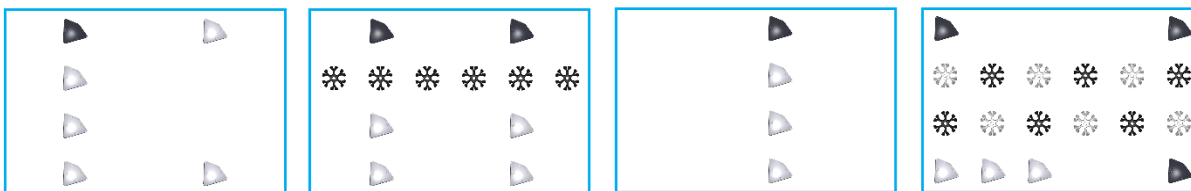
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- 3) Write the fraction of HyPars in each Figure, then,  
3a) Circle the Figures that are equivalent.



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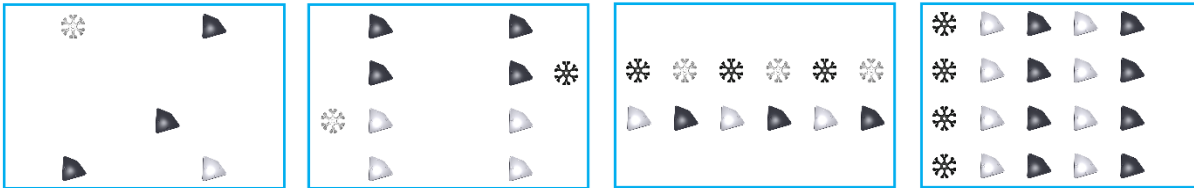
- 4) Write the fraction of black HyPars in each Figure, then,  
4a) Circle the Figures that are equivalent.



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## Find Equivalent Fractions Worksheet

- 5) Write the fraction of Connectors in each Figure, then,  
5a) Circle the Figures that are equivalent.



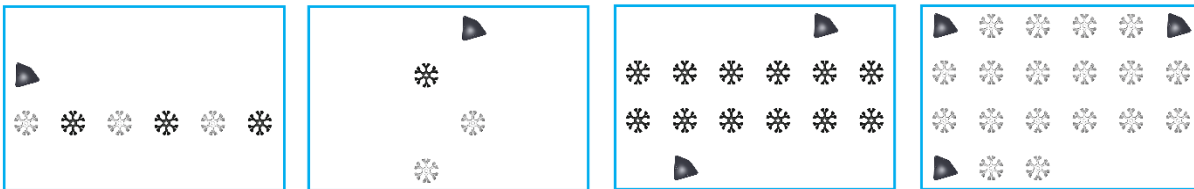
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- 6) Write the fraction of white Connectors in each Figure, then,  
6a) Circle the Figures that are equivalent.



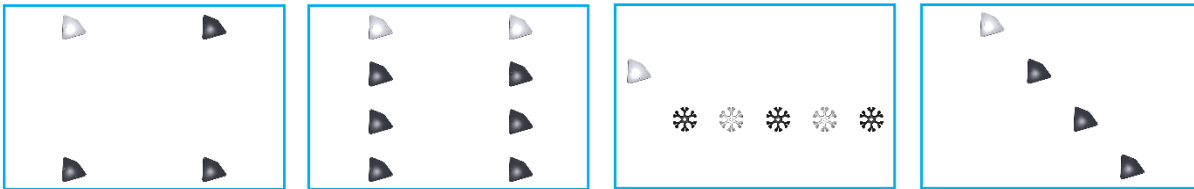
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- 7) Write the fraction of HyPars in each Figure, then,  
7a) Circle the Figures that are equivalent.



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- 8) Write the fraction of white HyPars in each Figure, then,  
8a) Circle the Figures that are equivalent.



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