St. John Brebeuf Grade 7 Math Name: _____
Unit: Fractions, Decimals Due Date: _____

Ordering Fractions and Decimals Hand-In Assignment

Show any conversion, reduced fractions, LCDs, mixed/improper forms needed to compare numbers or show your thinking.

1) Convert the following fractions to decimals and vice versa. (8)

a) $\frac{10}{16}$ b) $\frac{15}{20}$ c) $\frac{9}{33}$ d) $\frac{24}{30}$

e) 0.001 f) 0.03 g) 0.103 h) 0.500

2) Which inequality/equality sign makes the following true? Explain each choice. (8)

a) 3.4 (?) 5.6 b) 1.0 (?) 1.01

c) 1.00 (?) 1.0 d) 4.21 (?) 4.021

e) $1\frac{2}{3}(?)2\frac{2}{3}$ f) $1\frac{5}{9}(?)1\frac{4}{9}$

g) $\frac{3}{8}(?)\frac{3}{7}$ h) $\frac{8}{7}(?)\frac{8}{9}$

3) Write three fractions that are in their lowest terms, and compare them using your choice of model (fraction bar, number line, fraction circle, etc.) (3)

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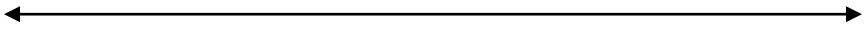
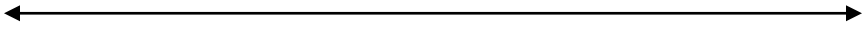
4) Use benchmarks (number line marked with 0, ½, 1, …) to compare the following (4 each)

a) $\frac{5}{4}$, 1.01, $\frac{10}{6}$, $1\frac{99}{100}$



b) $\frac{1}{1000}$, $\frac{56}{57}$, $\frac{70}{150}$, $\frac{21}{40}$



5) Round the following to the nearest whole number. (1/2 each)

a) 22.801 b) 25.099 c) 0.49 d) $81\frac{7}{9}$ e) $54\frac{4}{7}$ f) $29\frac{7}{12}$

6) Last month, Ed finished ¾ of the items on his to-do list, while Jenna finished 7/11 of the items on her list. Who finished a greater amount of their list? Explain. (2)

7) $\frac{?}{?} = \frac{1}{3}$. Find all possibilities using numbers smaller than 20. Show your work. (2)

8) We know that $\frac{1}{2} = \frac{2}{4} = \frac{3}{6}$. Is it possible to find **two numbers** that satisfy $3 = \frac{?}{2}$
Explain your answer. (3)

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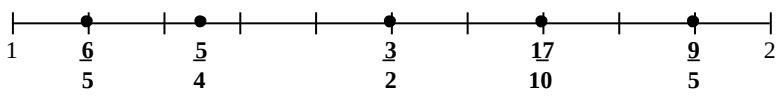
9) Choose two fractions with different denominators. How many different ways can you compare them? One mark for each method. (5)

10) Determine the number half-way between $\frac{3}{7}$ and $\frac{3}{5}$. Explain your thinking. (2)

11) Roxanne claims that ¼ is greater than ½ and that $\frac{7}{4}$ is smaller than $\frac{7}{5}$. Can you think of why she might think that? Show how you would explain the proper way to compare each set of fractions to her. (3)

12) Thor tries to figure out how many pieces of pie are left if he sees his brother with an eighth of the pie and his sister with two pieces of the pie. Help Thor figure out the problem (there is more than one answer). What assumptions do you have to make in solving this problem? (2)

13) Identify the numbers that have been placed incorrectly. Then place them in their proper place. Show your thinking for checking **each** number. (5)



14) Determine the number half-way between 3.4 and 3.5. Explain your thinking. (2)

15) Alan, Betty and Christine sold candy at a Spring Fair.
Alan sold $3\frac{1}{2}$ kg, Betty sold $3\frac{2}{3}$ kg, and Christine sold $3\frac{1}{4}$ kg.

a) Who sold the most candy? The least? Explain. (2)

16) Choose 2 decimals, 2 mixed numbers, and 2 improper fractions with not so nice denominators. All 6 numbers should be between 1 and 3. Try to choose numbers that will challenge you, but are within your range of abilities.

Numbers:

Order them from smallest to largest, showing your thinking, in (3 each)

a) all decimals

b) all fractions

c) benchmarks