

INVESTIGATION ANSWERS

Fractions: Thirds, Fifths, and Eighths:

1 60 questions

2 40 questions

3 24 questions

4 15 questions

5 41 questions

6 more than $\frac{1}{3}$

7 more than half;
 $40 + 24 > 60$

8 less than half;
 $40 + 15 < 60$

Using Fraction Manipulatives:

9  = 

10  = 

11 2 eighths

12 less than one half

13 0.4

14 0.6

15 0.5

16 no

17 no

18 No; sample: the denominator is an odd number. Half of an odd number is not a whole number of pieces.

19 $\frac{1}{8}$ circle

20 $\frac{1}{4}$

21 Yes; sample: $\frac{3}{8}$ is less than $\frac{4}{8}$.

22 $\frac{1}{4}$

23 $\frac{1}{8}$

24 $\frac{1}{10}$

25 $\frac{1}{6}$

26 $\frac{1}{5} + \frac{2}{5} = \frac{3}{5}$

27 $\frac{3}{8} + \frac{5}{8} = \frac{8}{8} = 1$

28 $\frac{2}{3} - \frac{1}{3} = \frac{1}{3}$

29 $\frac{5}{8} - \frac{2}{8} = \frac{3}{8}$

30 $<$

31 $<$

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32 >**33** <**34** $\frac{1}{10}, \frac{1}{8}, \frac{1}{5}, \frac{1}{4}, \frac{1}{3}, \frac{1}{2}$ **35** 0.10, 0.125, 0.20, 0.25, 0.3, 0.50**36** $33\frac{1}{3}\%$ **37** 60%**38** 50%**39** >**40** <**Investigate Further:**

- a** See student work; sample: the fractions that represent each of the figures that belong are $\frac{1}{4}$, $\frac{1}{8}$, and $\frac{1}{2}$. Each of those figures has an even number of congruent parts and an even denominator to represent those parts. The figure that does not belong has an odd number of congruent parts and is represented by $\frac{1}{3}$, a fraction that has an odd denominator.