

Year 5 Fractions

Challenge Cards



Year 5 Fractions

1

How many ways can you compare these fractions?

$$\square < \square$$

$$\square > \square$$

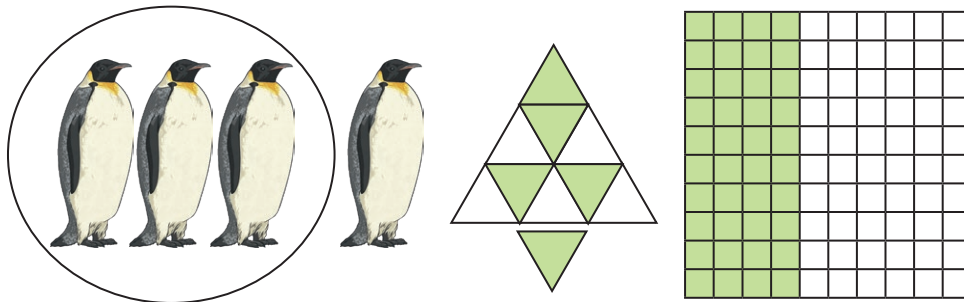
$\frac{1}{2}$	$\frac{3}{4}$	$\frac{3}{5}$
$\frac{1}{3}$	$\frac{5}{6}$	$\frac{9}{10}$

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Year 5 Fractions

2

Write four equivalent fractions for each of the diagrams.



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Year 5 Fractions

3

Identify the missing numbers in these fraction calculations:

$3\frac{1}{3} - \frac{\square}{3} = 2\frac{2}{3}$	$\square\frac{\square}{9} - \frac{7}{9} = \frac{6}{9}$
$2\frac{30}{100} + 1\frac{86}{100} = \square\frac{\square}{100}$	$3\frac{4}{6} - \frac{\square}{6} = \frac{17}{6}$
$4\frac{7}{10} - \frac{\square}{10} = 1\frac{8}{10}$	$\square\frac{\square}{5} - \frac{4}{5} = \frac{3}{5}$

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Choose pairs of fractions to add together. Use each fraction once.

$\frac{4}{5}$	$\frac{30}{100}$	$\frac{8}{10}$	$\frac{9}{15}$
$\frac{10}{20}$	$\frac{7}{10}$	$\frac{45}{50}$	$\frac{18}{20}$

Can you find the total of all the fractions?

Identify the missing numbers in these fraction calculations:

$$\frac{5}{6} + \frac{4}{6} = \frac{9}{6} = \square \frac{\square}{\square}$$

$$\frac{4}{12} + \frac{11}{12} = \frac{\square}{\square} = \square \frac{\square}{\square}$$

$$1 \frac{5}{8} - \frac{6}{8} = \frac{\square}{8}$$

$$2 \frac{1}{4} - \frac{3}{4} = \frac{\square}{\square} = \square \frac{\square}{\square}$$

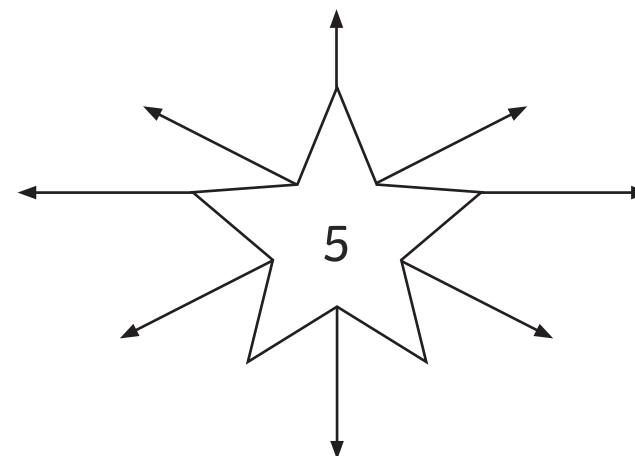
$$\frac{\square}{5} + \frac{3}{5} = 1 \frac{2}{5}$$

$$\frac{6}{7} + \frac{\square}{7} = 1 \frac{5}{7}$$

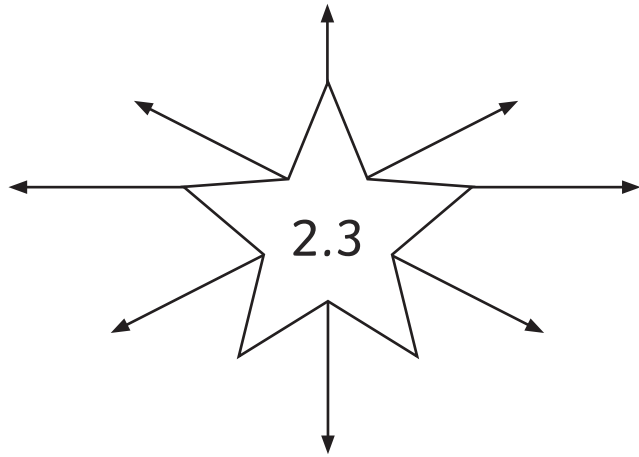
For each group of numbers, find the odd one out. Explain your reasoning.

0.05	$\frac{50}{100}$	5%
0.075	$\frac{75}{100}$	75%
0.09	$\frac{9}{100}$	90%
0.014	$\frac{14}{1000}$	14%

Find eight different decimal numbers that round to 5.



Find eight different decimal numbers that round to 2.3.



Year 5 Fractions Challenge Cards Answers

1.

$$\begin{array}{ccccccccc} \frac{1}{2} < \frac{3}{5}, & \frac{1}{2} < \frac{3}{4}, & \frac{1}{2} < \frac{5}{6}, & \frac{1}{2} < \frac{9}{10}, & \frac{1}{2} > \frac{1}{3}, \\ \frac{3}{4} < \frac{5}{6}, & \frac{3}{4} < \frac{9}{10}, & \frac{3}{4} > \frac{3}{5}, & \frac{3}{4} > \frac{1}{2}, & \frac{3}{4} > \frac{1}{3}, \\ \frac{3}{5} < \frac{3}{4}, & \frac{3}{5} < \frac{5}{6}, & \frac{3}{4} < \frac{9}{10}, & \frac{3}{5} > \frac{1}{2}, & \frac{3}{5} > \frac{1}{3}, \\ \frac{1}{3} < \frac{1}{2}, & \frac{1}{3} < \frac{3}{5}, & \frac{1}{3} < \frac{3}{4}, & \frac{1}{3} < \frac{5}{6}, & \frac{1}{3} < \frac{9}{10}, \\ \frac{5}{6} < \frac{9}{10}, & \frac{5}{6} > \frac{1}{3}, & \frac{5}{6} > \frac{1}{2}, & \frac{5}{6} > \frac{3}{5}, & \frac{5}{6} > \frac{3}{4}, \\ \frac{9}{10} > \frac{1}{3}, & \frac{9}{10} > \frac{1}{2}, & \frac{9}{10} > \frac{3}{5}, & \frac{9}{10} > \frac{3}{4}, & \frac{9}{10} > \frac{5}{6} \end{array}$$

2. Multiple answers possible, such as:

$$\frac{3}{4} = \frac{6}{8} = \frac{12}{16} = \frac{15}{20} = \frac{75}{100}$$

$$\frac{40}{100} = \frac{4}{10} = \frac{2}{5} = \frac{20}{50}$$

$$\frac{5}{10} = \frac{50}{100} = \frac{1}{2} = \frac{2}{4} = \frac{3}{6}$$

3.

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

$$1 \frac{4}{9} - \frac{7}{9} = \frac{6}{9}$$

$$2 \frac{30}{100} + 1 \frac{86}{100} = 4 \frac{16}{100}$$

$$3 \frac{4}{6} - \frac{5}{6} = \frac{17}{6}$$

$$4 \frac{7}{10} - \frac{29}{10} = 1 \frac{8}{10}$$

$$1 \frac{2}{5} - \frac{4}{5} = \frac{3}{5}$$

4. Multiple answers possible, such as:

$$\frac{8}{10} + \frac{7}{10} = \frac{15}{10} = 1 \frac{5}{10}$$

$$\frac{10}{20} + \frac{18}{20} = \frac{28}{20} = 1 \frac{8}{20}$$

$$\frac{40}{50} + \frac{30}{100} = \frac{90}{100} + \frac{30}{100} = \frac{120}{100} = 1 \frac{20}{100}$$

$$\frac{4}{5} + \frac{9}{15} = \frac{13}{15} + \frac{9}{15} = \frac{22}{15} = 1 \frac{7}{15}$$

The total of all the fractions equals:

$$\frac{55}{10} = 5 \frac{5}{10}$$

or given as an equivalent fraction, e.g.

$$\frac{550}{100} = 5 \frac{50}{100}, \quad \frac{110}{20} = 5 \frac{10}{20},$$

$$\frac{275}{50} = 5 \frac{25}{50}, \quad \frac{11}{2} = 5 \frac{1}{2}$$

Year 5 Fractions Challenge Cards Answers

5.

$$\frac{5}{6} + \frac{4}{6} = \frac{9}{6} = 1 \frac{1}{2}$$

$$\frac{4}{12} + \frac{11}{12} = \frac{15}{12} = 1 \frac{1}{4}$$

$$1 \frac{5}{8} - \frac{6}{8} = \frac{7}{8}$$

$$2 \frac{1}{4} - \frac{3}{4} = \frac{6}{4} = 1 \frac{1}{2}$$

$$\frac{4}{5} + \frac{3}{5} = 1 \frac{2}{5}$$

$$\frac{6}{7} + \frac{6}{7} = 1 \frac{5}{7}$$

6. $\frac{50}{100}$ is the odd one out, it should be $\frac{5}{100}$

0.075 is the odd one out, it should be 0.75

90% is the odd one out, it should be 9%

14% is the odd one out, it should be 1.4%

7. Possible answers:

4.5, 4.6, 4.7, 4.8, 4.9, 5.1, 5.2, 5.3, 5.4

4.51, 4.52, 4.53, 4.54, 4.55, 4.56, 4.57, 4.58, 4.59

4.61, 4.62, 4.63, 4.64, 4.65, 4.66, 4.67, 4.68, 4.69

4.71, 4.72, 4.73, 4.74, 4.75, 4.76, 4.77, 4.78, 4.79

4.81, 4.82, 4.83, 4.84, 4.85, 4.86, 4.87, 4.88, 4.89

4.91, 4.92, 4.93, 4.94, 4.95, 4.96, 4.97, 4.98, 4.99

5.11, 5.12, 5.13, 5.14, 5.15, 5.16, 5.17, 5.18, 5.19

5.21, 5.22, 5.23, 5.24, 5.25, 5.26, 5.27, 5.28, 5.29

5.31, 5.32, 5.33, 5.34, 5.35, 5.36, 5.37, 5.38, 5.39

5.41, 5.42, 5.43, 5.44, 5.45, 5.46, 5.47, 5.48, 5.49

Also accept any other number with more decimal places, e.g. 5.135, 4.872

8. 8.2.25, 2.26, 2.27, 2.28, 2.29, 2.31, 2.32, 2.33, 2.34

Also accept any other number with more decimal places, e.g. 2.257, 2.334