

Grade 9 Diagnostic Fractions

Short Answer

1. List three fractions equivalent (equal) to each fraction.

a) $\frac{5}{9}$

b) $\frac{12}{14}$

c) $\frac{26}{100}$

2. Use a greater than (>) or less than (<) sign to make these statements true.

a) $\frac{4}{10}$ $\frac{1}{2}$

b) $\frac{1}{2}$ $\frac{1}{4}$

c) $\frac{4}{5}$ $\frac{8}{9}$

d) $\frac{5}{9}$ $\frac{9}{5}$

e) $4\frac{9}{8}$ $5\frac{1}{9}$

f) $3\frac{2}{3}$ $3\frac{5}{7}$

3. Order these values from least to greatest:

$$\frac{8}{9}, \quad \frac{4}{5}, \quad \frac{7}{29}, \quad \frac{3}{4}, \quad \frac{1}{4}, \quad \frac{2}{9}$$

4. Draw a picture to show why each statement is true:

a) $\frac{1}{8} + \frac{6}{8} = \frac{7}{8}$

b) $\frac{2}{5} + \frac{1}{3} = \frac{11}{15}$

5. Add each pair of numbers.

a) $\frac{2}{5} + \frac{1}{5}$

b) $\frac{2}{5} + \frac{1}{3}$

c)

6. Write a story problem that you could solve by adding $3\frac{3}{5}$ and $3\frac{1}{4}$.

7. Draw a picture to show why each statement is true:

a) $\frac{4}{6} - \frac{1}{6} = \frac{3}{6}$

b) $\frac{14}{15} - \frac{1}{3} = \frac{3}{5}$

8. Subtract each pair of numbers.

a) $\frac{1}{7} + \frac{5}{7}$

b) $\frac{3}{7} + \frac{1}{2}$

c)

9. Write a story problem that you could solve by subtracting $\frac{1}{2}$ from $2\frac{1}{3}$.

10. Draw a picture to show why each statement is true:

a) $\frac{1}{2} \times \frac{2}{4} = \frac{1}{4}$

b) $\frac{7}{10} - \frac{1}{2} = \frac{1}{5}$

Grade 9 Diagnostic Fractions Answer Section

SHORT ANSWER

1. ANS:

There are many possible answers.

a) $\frac{5}{9} = \frac{10}{18} = \frac{15}{27} = \frac{20}{36} = \frac{25}{45} = \dots$

b) $\frac{12}{14} = \frac{6}{7} = \frac{24}{28} = \frac{36}{42} = \frac{48}{56} = \dots$

c) $\frac{26}{100} = \frac{13}{50} = \frac{52}{200} = \frac{78}{300} = \frac{104}{400} = \dots$

PTS: 1

2. ANS:

Use a greater than (>) or less than (<) sign to make these statements true.

a) $\frac{4}{10} < \frac{1}{2}$

b) $\frac{1}{2} > \frac{1}{4}$

c) $\frac{4}{5} < \frac{8}{9}$

d) $\frac{5}{9} < \frac{9}{5}$

e) $4\frac{9}{8} > 5\frac{1}{9}$

f) $3\frac{2}{3} < 3\frac{5}{7}$

PTS: 1

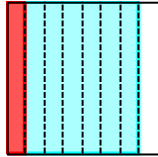
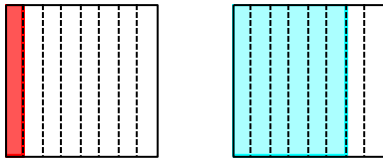
3. ANS:

stuff

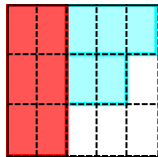
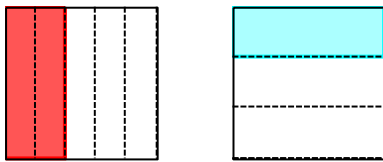
PTS: 1

4. ANS:

a)



b)



PTS: 1

5. ANS:

$$a) \frac{2}{5} + \frac{1}{5} = \frac{3}{5}$$

$$b) \frac{2}{5} + \frac{1}{3} = \frac{2 \times 3}{5 \times 3} + \frac{1 \times 5}{3 \times 5}$$

$$= \frac{6}{15} + \frac{5}{15}$$

$$= \frac{11}{15}$$

PTS: 1

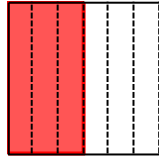
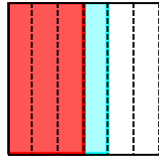
6. ANS:

answers will vary

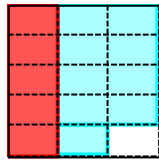
PTS: 1

7. ANS:

a)



b)



PTS: 1

8. ANS:

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

$$b) \frac{3}{7} + \frac{1}{2} = \frac{3 \times 2}{7 \times 2} + \frac{1 \times 7}{2 \times 7}$$

$$= \frac{6}{14} + \frac{7}{14}$$

$$= \frac{13}{14}$$

PTS: 1

9. ANS:

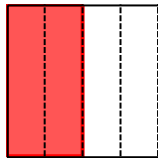
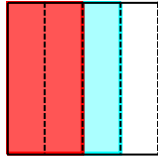
answers will vary

PTS: 1

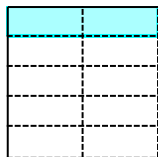
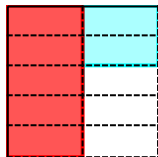
10. ANS:

a)

11
10
9
8
7
6
5
4
3
2
1



b)



PTS: 1