

Pretest

Write each fraction as a decimal. Use a bar to show a repeating decimal.

$$7 \overline{) 2.0} \begin{array}{r} 0.2857142 \\ 14 \\ \hline 60 \\ 56 \\ \hline 40 \\ 35 \\ \hline 50 \\ 49 \\ \hline 10 \\ 7 \\ \hline 30 \\ 28 \\ \hline 20 \\ 14 \\ \hline 60 \end{array}$$

2. $\frac{2}{7}$

-0.12

$\frac{3}{25} \cdot \frac{4}{4} = \frac{12}{100} = 0.12$

-0.12

1. _____

2. ~~0.35~~ 0.285714

Write each decimal as a fraction or mixed number in simplest form.

3. 0.38

$= \frac{38}{100} = \frac{19}{50}$

4. $-5.\bar{5}$

$5 \frac{5}{10}, 5 \frac{55}{100}, 5 \frac{555}{1000}$

3. _____

4. _____

Replace each \bullet with $<$, $>$, or $=$ to make a true sentence.

5. $-0.58 \bullet -\frac{1}{4}$

$\frac{2}{3} = \frac{14}{21}$

6. $1\frac{2}{3} \bullet 1\frac{5}{7}$

$\frac{5}{7} = \frac{15}{21}$

5. _____

6. _____

Find each product or quotient. Write in simplest form.

7. $-\frac{2}{9} \cdot \frac{3}{14}$

$= \frac{2 \cdot 3}{9 \cdot 14} = \frac{1}{21}$

8. $\frac{5}{6} \div \left(-\frac{7}{18}\right)$

$\rightarrow \frac{5}{6} \cdot \left(-\frac{18}{7}\right)$

7. $-\frac{1}{21}$

8. $-\frac{15}{7} = -2\frac{1}{7}$

Find each sum or difference. Write in simplest form.

9. $-\frac{3}{7} + \frac{5}{14}$

$-\frac{3}{7} = -\frac{6}{14}$

$-\frac{6}{14} - \frac{5}{14} = \frac{-6+5}{14}$

10. $\frac{3}{12} - \frac{5}{12}$

$= \frac{3-5}{12} = -\frac{2}{12}$

9. $-\frac{1}{14}$

10. $-\frac{2}{12} = -\frac{1}{6}$

Evaluate each expression if $a = 2\frac{1}{2}$, $c = 6$, $p = \frac{1}{3}$ and $r = \frac{5}{8}$.

11. pr

$\frac{1}{3} \cdot \frac{5}{8} = \frac{5}{24}$

12. $r \div a$

$\frac{5}{8} \div 2\frac{1}{2} = \frac{5}{8} \div \frac{5}{2} = \frac{5}{8} \cdot \frac{2}{5}$

13. $ac + p$

$2\frac{1}{2} \cdot 6 + \frac{1}{3} = 15 + \frac{1}{3}$

11. $\frac{5}{24}$

12. $\frac{1}{4}$

13. $15\frac{1}{3}$

14. A U.S. dollar bill remains in circulation about $2\frac{1}{4}$ years. A U.S. coin is in circulation about

$\frac{5}{4} \rightarrow 2\frac{1}{4}$
 $\frac{45}{2} \rightarrow 22\frac{1}{2}$
 $\frac{5}{2} \cdot \frac{45}{4} = \frac{225}{8} = 28\frac{1}{8}$

14. _____

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Diagnostic Test

GCF (GREATEST COMMON FACTOR) ← SIMPLIFY

Write each fraction in simplest form. If the fraction is already in simplest form, write *simplified*.

1. $\frac{3}{24} \div \boxed{3} = \frac{1}{8}$

2. $\frac{9}{29}$

3. $\frac{27}{81} \div \boxed{9} = \frac{3}{9} \div \boxed{3} = \frac{1}{3}$

4. $\frac{36}{72} \div \frac{36}{36} = \frac{1}{2}$

5. Forty of the 50 cheerleaders at the competition are wearing hair bows. What is this fraction in simplest form?

$\frac{40}{50} \div \frac{10}{10} = \frac{4}{5}$

6. Of the 28 people boarding an airplane, 24 were holding a cell phone. What is this fraction in simplest form?

$\frac{24}{28} \div \frac{4}{4} = \frac{6}{7}$

Find the least common multiple for each pair of numbers.

7. 8, 32

DOES THE SMALL NUMBER GO INTO THE BIG NUMBER EVENLY

8. 14, 16

9. 3, 21

10. 14, 21

11. Every sixth person in line at the theater will receive a free movie pass. Every ninth person will receive a free DVD. Which person in line will be the first to receive both items?

12. Two cross-walk signals change between stop and walk automatically. One signal changes from stop to walk every 16 seconds and the other changes every 24 seconds. Assuming at 6:00 A.M. both signals change from stop to walk, how many times during the next hour do they change at the same time?

1. $\frac{1}{8}$

2. SIMPLIFIED

3. _____

4. _____

5. _____

6. _____

7. 32

8. 96

9. 21

10. 42

11. 18TH PERSON

12. 75 TIMES

$$1 \text{ HR} = 3600$$

$$\begin{array}{l} 16 \text{ SEC} \quad 0, 16, 32, 48 \\ 24 \text{ SEC} \quad 0, 24, 48 \end{array}$$

$$\begin{array}{l} 96 \\ 96 \end{array}$$

$$\frac{3600}{48} = 75 \text{ TIMES}$$