

6th Grade Summer Math Work

Please complete the following pages and turn all 11 pages in the first week of school.

Fraction Review

For each problem below, add or subtract. Show your work on another piece of paper and write your answers on the lines provided.

- | | | |
|--|--|---|
| 1) $\frac{1}{2} - \frac{1}{4} =$ _____ | 6) $\frac{7}{10} - \frac{1}{2} =$ _____ | 11) $1\frac{10}{21} + 4\frac{5}{7} =$ _____ |
| 2) $\frac{4}{8} + \frac{1}{4} =$ _____ | 7) $\frac{3}{6} + \frac{2}{12} =$ _____ | 12) $2\frac{7}{27} + 8\frac{5}{9} =$ _____ |
| 3) $\frac{1}{3} + \frac{3}{9} =$ _____ | 8) $\frac{4}{14} + \frac{1}{7} =$ _____ | 13) $7\frac{4}{5} - 3\frac{8}{20} =$ _____ |
| 4) $\frac{3}{5} - \frac{1}{3} =$ _____ | 9) $\frac{1}{3} + \frac{3}{9} =$ _____ | 14) $9\frac{8}{20} - 4\frac{2}{5} =$ _____ |
| 5) $\frac{2}{3} - \frac{1}{2} =$ _____ | 10) $\frac{4}{12} - \frac{1}{3} =$ _____ | 15) $3\frac{1}{7} + 5\frac{12}{21} =$ _____ |

For each problem below, add or subtract fractions and then compare results. Write greater than (>), less than (<), or equal to (=).

- | | |
|--|--|
| 1) $6\frac{1}{4} - 3\frac{1}{20} \square 6\frac{1}{4} - 3\frac{1}{20}$ | 4) $3\frac{1}{4} + 3\frac{4}{6} \square 2\frac{1}{2} + 3\frac{1}{2}$ |
| 2) $6\frac{5}{10} + 8\frac{1}{4} \square 2\frac{4}{14} + 7\frac{1}{7}$ | 5) $9\frac{5}{6} + 5\frac{2}{3} \square 8\frac{7}{9} - 4\frac{1}{3}$ |
| 3) $8\frac{3}{4} - 3\frac{5}{7} \square 9\frac{6}{7} - 3\frac{2}{14}$ | 6) $5\frac{1}{4} - 1\frac{1}{8} \square 3\frac{1}{2} + 5\frac{3}{6}$ |

For each problem below, find the missing factor by computing the inverse operation.

- | | |
|--|---|
| 1) $4\frac{1}{2} - \square = 2\frac{7}{8}$ | 3) $\square + 8\frac{7}{8} = 13\frac{3}{8}$ |
| 2) $\square + 1\frac{1}{2} = 11$ | 4) $7\frac{5}{8} - \square = 5\frac{3}{8}$ |

Let it Snow! Three-Digit Multiplication Practice

1)
$$\begin{array}{r} 420 \\ \times 426 \\ \hline \end{array}$$

2)
$$\begin{array}{r} 333 \\ \times 390 \\ \hline \end{array}$$

3)
$$\begin{array}{r} 990 \\ \times 856 \\ \hline \end{array}$$

4)
$$\begin{array}{r} 243 \\ \times 426 \\ \hline \end{array}$$

5)
$$\begin{array}{r} 645 \\ \times 835 \\ \hline \end{array}$$

6)
$$\begin{array}{r} 954 \\ \times 759 \\ \hline \end{array}$$

7)
$$\begin{array}{r} 240 \\ \times 783 \\ \hline \end{array}$$

8)
$$\begin{array}{r} 420 \\ \times 893 \\ \hline \end{array}$$

9)
$$\begin{array}{r} 125 \\ \times 603 \\ \hline \end{array}$$

10)
$$\begin{array}{r} 718 \\ \times 342 \\ \hline \end{array}$$

11)
$$\begin{array}{r} 548 \\ \times 785 \\ \hline \end{array}$$

12)
$$\begin{array}{r} 391 \\ \times 688 \\ \hline \end{array}$$

13)
$$\begin{array}{r} 420 \\ \times 174 \\ \hline \end{array}$$

14)
$$\begin{array}{r} 915 \\ \times 361 \\ \hline \end{array}$$

15)
$$\begin{array}{r} 972 \\ \times 559 \\ \hline \end{array}$$



Name _____

Date _____

DIVISION REVIEW

Complete the following long division problems,
taking care to show your work.

A. $9 \overline{) 8,487}$ $10 \overline{) 2,960}$ $9 \overline{) 5,247}$ $5 \overline{) 4,170}$ $9 \overline{) 9,216}$ $2 \overline{) 9,570}$

B. $10 \overline{) 8,820}$ $9 \overline{) 198}$ $12 \overline{) 3,528}$ $3 \overline{) 4,059}$ $6 \overline{) 8,598}$ $3 \overline{) 429}$

C. $2 \overline{) 8,596}$ $10 \overline{) 8,020}$ $2 \overline{) 1,228}$ $2 \overline{) 1,912}$ $12 \overline{) 3,024}$ $3 \overline{) 7,770}$

D. $5 \overline{) 9,450}$ $10 \overline{) 7,470}$ $4 \overline{) 3,924}$ $3 \overline{) 4,710}$ $2 \overline{) 1,420}$ $6 \overline{) 8,406}$

E. $3 \overline{) 7,002}$ $18 \overline{) 6,102}$ $6 \overline{) 1,224}$ $6 \overline{) 6,360}$ $5 \overline{) 4,290}$ $4 \overline{) 8,540}$

A mixed fraction, or mixed number, is a whole number and a proper fraction combined.

These fractions can also be written as improper fractions.

To convert a mixed fraction to a improper fraction, follow the steps below.



1. Multiply the whole number part by the fraction's denominator.
2. Add that to the numerator.
3. Then write the result on top of the denominator.

Example: Convert $3\frac{2}{5}$ to an improper fraction.

Multiply the whole number by the denominator: $3 \times 5 = 15$

Add the numerator to that: $15 + 2 = 17$

Then write that down above the denominator, like this: $\frac{17}{5}$

Convert the following mixed numbers to improper fractions.

Write your answer on the line next to each problem.

1) $5\frac{1}{3} =$ _____

6) $2\frac{1}{2} =$ _____

11) $9\frac{1}{5} =$ _____

2) $2\frac{1}{8} =$ _____

7) $3\frac{1}{4} =$ _____

12) $6\frac{1}{2} =$ _____

3) $3\frac{1}{4} =$ _____

8) $6\frac{1}{10} =$ _____

13) $5\frac{4}{9} =$ _____

4) $3\frac{2}{9} =$ _____

9) $5\frac{7}{10} =$ _____

14) $9\frac{2}{3} =$ _____

5) $9\frac{3}{8} =$ _____

10) $9\frac{1}{2} =$ _____

15) $2\frac{3}{8} =$ _____



Build a 5-digit number (with decimals)

Grade 5 Place Value Worksheet

Example: $36.471 = 30 + 6 + 0.4 + 0.07 + 0.001$

Write the 5-digit numbers

1. _____ $50 + 5 + 0.2 + 0.06 + 0.006$
2. _____ $100 + 40 + 3 + 0.4 + 0.02$
3. _____ $50 + 0.8 + 0.03 + 0.007$
4. _____ $6,000 + 500 + 90 + 2 + 0.7$
5. _____ $50 + 3 + 0.5 + 0.02 + 0.005$
6. _____ $10 + 1 + 0.6 + 0.06 + 0.001$
7. _____ $5,000 + 900 + 90 + 2 + 0.8$
8. _____ $10 + 2 + 0.7 + 0.07 + 0.004$
9. _____ $7,000 + 700 + 80 + 0.9$
10. _____ $50,000 + 7,000 + 900 + 50 + 3$



Adding decimals (up to 3 decimal digits)

Grade 5 Decimals Worksheet

Find the sum.

1. $1.08 + 1.67 =$ _____ 2. $1.12 + 1.85 =$ _____

3. $0.195 + 1.06 =$ _____ 4. $0.37 + 0.45 =$ _____

5. $0.46 + 0.168 =$ _____ 6. $0.096 + 0.14 =$ _____

7. $0.134 + 0.193 =$ _____ 8. $1.82 + 0.013 =$ _____

9. $0.023 + 1.65 =$ _____ 10. $1.53 + 1.76 =$ _____

11. $1.40 + 0.108 =$ _____ 12. $0.033 + 0.032 =$ _____

13. $0.38 + 1.70 =$ _____ 14. $0.045 + 0.118 =$ _____

15. $0.190 + 0.93 =$ _____ 16. $0.070 + 1.70 =$ _____

17. $0.76 + 0.173 =$ _____ 18. $0.54 + 0.052 =$ _____

19. $0.197 + 0.175 =$ _____ 20. $0.088 + 0.189 =$ _____



Division by whole tens with remainder

Grade 5 Division Worksheet

Find the quotient with remainder.

1. $903 \div 20 =$ _____

2. $294 \div 60 =$ _____

3. $942 \div 80 =$ _____

4. $49 \div 80 =$ _____

5. $66 \div 50 =$ _____

6. $695 \div 60 =$ _____

7. $156 \div 60 =$ _____

8. $765 \div 20 =$ _____

9. $64 \div 30 =$ _____

10. $816 \div 80 =$ _____

11. $598 \div 80 =$ _____

12. $258 \div 80 =$ _____

13. $587 \div 70 =$ _____

14. $196 \div 50 =$ _____

15. $331 \div 30 =$ _____

16. $952 \div 70 =$ _____

17. $474 \div 40 =$ _____

18. $876 \div 90 =$ _____

19. $628 \div 50 =$ _____

20. $654 \div 80 =$ _____



Prime factors (numbers under 100)

Grade 5 Factoring Worksheet

Example: $24 = 2 \times 2 \times 2 \times 3$ (Not prime)

List the prime factors for each number. Is the number prime?

1. $17 =$ _____

2. $76 =$ _____

3. $78 =$ _____

4. $6 =$ _____

5. $47 =$ _____

6. $26 =$ _____

7. $29 =$ _____

8. $49 =$ _____

9. $41 =$ _____

10. $43 =$ _____

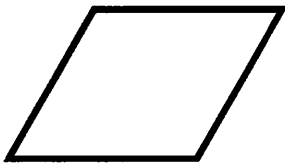
Classifying quadrilaterals

(square / rectangle / rhombus / parallelogram / trapezoid / scalene (irregular))

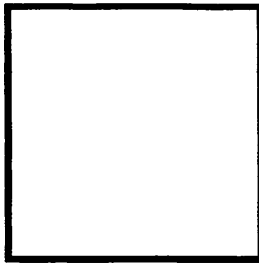
Grade 5 Geometry Worksheet

Classify the quadrilaterals.

1.



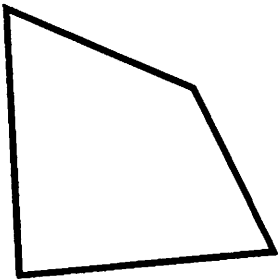
2.



3.



4.



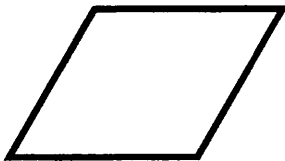
5.



6.



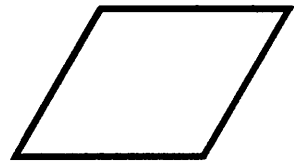
7.



8.



9.





Multiplying fractions (denominators 2-12)

Grade 5 Fractions Worksheet

Find the product.

1. $\frac{6}{8} \times \frac{3}{12} =$ _____

2. $\frac{1}{2} \times \frac{4}{5} =$ _____

3. $\frac{2}{4} \times \frac{7}{8} =$ _____

4. $\frac{2}{7} \times \frac{7}{9} =$ _____

5. $\frac{4}{10} \times \frac{1}{6} =$ _____

6. $\frac{2}{5} \times \frac{1}{4} =$ _____

7. $\frac{2}{3} \times \frac{3}{10} =$ _____

8. $\frac{8}{10} \times \frac{4}{7} =$ _____

9. $\frac{8}{12} \times \frac{1}{5} =$ _____

10. $\frac{5}{7} \times \frac{1}{3} =$ _____

11. $\frac{4}{5} \times \frac{3}{8} =$ _____

12. $\frac{1}{3} \times \frac{2}{6} =$ _____

13. $\frac{3}{10} \times \frac{10}{11} =$ _____

14. $\frac{1}{6} \times \frac{1}{4} =$ _____

Mixed operations word problems

Grade 5 Word Problems Worksheet

Read and answer each question:

During a normal day, there are 280 planes taking off from the airport, but the airport is a lot busier during Christmas. During the Christmas holidays, about 336 planes take off every day from the airport.

1. During the Christmas holidays, the airport opens 12 hours during each day, how many planes take off from this airport in each hour?
2. In average, each plane takes 240 passengers and 12 tons of cargo. How many passengers depart from the airport every hour during the Christmas holidays?
3. Compared with a normal day, how many more passengers depart from the airport in a day during the Christmas holidays?
4. During a normal day, there are 782 passengers in average that are late for their plane each day. However, during the Christmas holidays, there are 1,835 passengers that are late for their planes each day which caused delays of 14 planes. How many more passengers are late for their planes in each day during the Christmas holidays?
5. The airport administration did a study and found that an additional 5 minutes of delay in the overall operation of the airport is caused for every 32 passengers that are late for their flights. What is the delay in the overall operation if there are 832 passengers late for their flights?
6. Write an equation using "x" and then solve the equation.
On the New Year Eve, there were 7,580 tons of cargo loaded in the morning. In the afternoon, there were x tons of cargos. The total weight of cargos loaded on the day weighed 12,997 tons.

