

# Magnolia School

## 7th Grade Summer Math Packet

Math is a subject that continually builds on itself. Having a solid foundation in math is important for continued growth and learning in the subject. Keeping this in mind, we have put together a summer packet to help our students stay sharp over the summer. This packet contains an overview of different concepts that were learned in 6th grade.

All students should complete this packet and bring it with them on the first day of school. We will review the material as a class and go over any questions.

Students should show their work on each problem and use additional paper as needed. We are looking forward to seeing you in school soon!

Name \_\_\_\_\_

## Place Value

Write the place and the value for each underlined digit.  
Use the place value chart to help you.

Billions	Hundred Millions	Ten Millions	Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths	Ten-Thousandths
1,000,000,000	100,000,000	10,000,000	1,000,000	100,000	10,000	1,000	100	10	1	0.1	0.01	0.001	0.0001
$10^9$	$10^8$	$10^7$	$10^6$	$10^5$	$10^4$	$10^3$	$10^2$	$10^1$	$10^0$	$10^{-1}$	$10^{-2}$	$10^{-3}$	$10^{-4}$

	Place	Value
1. 2,65 <u>7</u> ,009		
2. 347.1 <u>5</u>		
3. <u>4</u> 7,689,290,019		
4. 92,003, <u>2</u> 56		
5. 1, <u>3</u> 56		
6. <u>1</u> 8,908,450,001,002		
7. 23,10 <u>3</u> ,103,103		
8. 0.003 <u>5</u> 6		
9. 1, <u>6</u> 10,002,134		
10. 5 <u>6</u> 7.5		
11. <u>9</u> 00,398,563,443		
12. 56, <u>4</u> 56,754		
13. 1.009 <u>7</u> 65		
14. <u>2</u> 5,002,234		
15. 89 <u>1</u> 3		
16. 0.00 <u>9</u>		
17. <u>3</u> 3,009,697,400		
18. 86,79 <u>8</u> ,492,037		

Name \_\_\_\_\_

## Compare and Order Whole Numbers

**Remember:**

< means "is less than"

> means "is greater than"

Use < or > to compare the numbers.

1. 876,234 ○ 876,204

2. 198,567 ○ 1,098,567

3. 1,009,004 ○ 1,009,104

4. 8,563,712 ○ 8,563,312

5. 765 ○ 665

6. 35,287,450 ○ 35,487,450

7. 54,178,002 ○ 4,178,002

8. 7657 ○ 7650

9. 760,397 ○ 761,385

Use place value to order the numbers from least to greatest.

10. 56,851; 58,851; 56,850; 56,857

\_\_\_\_\_

11. 4003; 4001; 4102; 4007

\_\_\_\_\_

12. 2,298,209; 298,209; 2,289,209; 2,298,200

\_\_\_\_\_

13. 1,509,810; 509,108; 1,509,880; 1,508,909

\_\_\_\_\_

14. 6,784,569; 6,789,559; 6,884,659; 6,084,059

\_\_\_\_\_

Use place value to order the numbers from greatest to least.

15. 12,567; 12,507; 10,576; 12,577

\_\_\_\_\_

16. 128; 108; 281; 812

\_\_\_\_\_

17. 198,261; 198,761; 198,126; 196,989

\_\_\_\_\_

18. 868,332; 886,333; 896,235; 869,123

\_\_\_\_\_

19. 2,374,008; 2,743,018; 2,437,018; 2,744,080

\_\_\_\_\_

20. 17,486,235; 17,864,205; 17,848,025; 17,884,005

\_\_\_\_\_

Name \_\_\_\_\_

## Round Whole Numbers and Decimals

**Round to the nearest hundred.**

1. 5673

\_\_\_\_\_

2. 934

\_\_\_\_\_

3. 10,928

\_\_\_\_\_

4. 9182

\_\_\_\_\_

5. 15,664

\_\_\_\_\_

6. 4555

\_\_\_\_\_

7. 312

\_\_\_\_\_

8. 9845

\_\_\_\_\_

9. 7124

\_\_\_\_\_

**Remember:**

If the digit to the right of the one you are rounding to is *less than* 5, then the first digit does not change.

If the digit to the right of the one you are rounding to is 5 or *greater*, then round the first digit up.

**Round to the nearest thousand.**

10. 1786

\_\_\_\_\_

11. 198,756

\_\_\_\_\_

12. 3967

\_\_\_\_\_

13. 27,650

\_\_\_\_\_

14. 5437

\_\_\_\_\_

15. 11,099

\_\_\_\_\_

16. 3,875,508

\_\_\_\_\_

17. 26,147

\_\_\_\_\_

18. 8756

\_\_\_\_\_

19. 1754

\_\_\_\_\_

**Round to the nearest thousandth.**

20. 0.0983

\_\_\_\_\_

21. 1.7865

\_\_\_\_\_

22. 0.4821

\_\_\_\_\_

23. 0.00765

\_\_\_\_\_

24. 4.09876

\_\_\_\_\_

25. 0.01605

\_\_\_\_\_

26. 6.16511

\_\_\_\_\_

27. 0.56477

\_\_\_\_\_

28. 2.00987

\_\_\_\_\_

29. 4.4563

\_\_\_\_\_

30. 0.00812

\_\_\_\_\_

31. 0.15674

\_\_\_\_\_

32. 9.00178

\_\_\_\_\_

33. 0.6574

\_\_\_\_\_

34. 0.0345

\_\_\_\_\_

**Round to the greatest nonzero place.**

35. 0.76198

\_\_\_\_\_

36. 3.002

\_\_\_\_\_

37. 4.6574

\_\_\_\_\_

38. 0.542

\_\_\_\_\_

39. 5.0023

\_\_\_\_\_

40. 7.0897

\_\_\_\_\_

41. 82.01

\_\_\_\_\_

42. 12.956

\_\_\_\_\_

43. 1.512

\_\_\_\_\_

44. 6.8101

\_\_\_\_\_

Name \_\_\_\_\_

## Compare and Order Decimals

**Remember:**

Compare and order decimals the same way you compare and order whole numbers.

Use  $<$ ,  $>$ , or  $=$  to compare the decimals.

1. 3.564 ○ 3.556

2. 5.004 ○ 5.014

4. 0.01876 ○ 0.01872

6. 2.984 ○ 2.955

8. 0.3005 ○ 0.299

3. 8.111 ○ 8.117

5. 4.718 ○ 4.717

7. 0.00714 ○ 0.00741

9. 26.65 ○ 26.65

Use place value to order the decimals from least to greatest.

10. 4.098; 4.106; 3.996

\_\_\_\_\_

11. 0.056; 0.065; 0.055

\_\_\_\_\_

12. 1.786; 1.780; 1.785

\_\_\_\_\_

13. 6.109; 6.181; 6.19

\_\_\_\_\_

14. 3.490; 3.409; 3.41

\_\_\_\_\_

15. 9.011; 9.002; 9.007

\_\_\_\_\_

16. 12.12; 12.26; 12.16

\_\_\_\_\_

17. 0.722; 0.701; 0.677

\_\_\_\_\_

Use place value to order the decimals from greatest to least.

18. 0.048; 0.0401; 0.08

\_\_\_\_\_

19. 5.99; 6.05; 6.95

\_\_\_\_\_

20. 4.775; 4.79; 4.97

\_\_\_\_\_

21. 40.6; 41.06; 40.66

\_\_\_\_\_

22. 2.012; 2.015; 2.025

\_\_\_\_\_

23. 71.107; 70.707; 71.707

\_\_\_\_\_

24. 9.12; 9.21; 9.2

\_\_\_\_\_

25. 8.235; 8.204; 8.234

\_\_\_\_\_

Name \_\_\_\_\_

**Estimate Sums and Differences****Use rounding to estimate the sum.**

$$\begin{array}{r} 1. \quad 6067 \\ \quad 704 \\ +807 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 506 \\ \quad 9 \\ +745 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 14.88 \\ \quad 11.07 \\ +1.99 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 6.04 \\ \quad 1.12 \\ +0.85 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 23 \\ 1098 \\ +41 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 0.64 \\ \quad 1.35 \\ +3.17 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 12.89 \\ \quad 4.06 \\ +8.12 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 39 \\ \quad 67 \\ +211 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 3093 \\ \quad 1887 \\ +1034 \\ \hline \end{array}$$

**Use rounding to estimate the difference.**

$$\begin{array}{r} 10. \quad 1908 \\ \quad -467 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 17.68 \\ \quad -0.99 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 107.14 \\ \quad -55.3 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad 1291 \\ \quad -104 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad 87 \\ \quad -22 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad 876 \\ \quad -435 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad 46.03 \\ \quad -11.01 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad 4877 \\ \quad -2037 \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad 2.856 \\ \quad -0.234 \\ \hline \end{array}$$

**Remember:**

Round each number to the greatest nonzero place of the least number. Add the rounded numbers.

**Remember:**

Round each number to the greatest nonzero place of the least number. Subtract the rounded numbers.

Name \_\_\_\_\_

**Use front-end estimation to estimate the sum.**

19. 
$$\begin{array}{r} 467 \\ 22 \\ +946 \\ \hline \end{array}$$

adjusted estimate:

20. 
$$\begin{array}{r} 34.01 \\ 3.88 \\ +18.09 \\ \hline \end{array}$$

adjusted estimate:

22. 
$$\begin{array}{r} 17.44 \\ 3.99 \\ +11.23 \\ \hline \end{array}$$

adjusted estimate:

21. 
$$\begin{array}{r} 146 \\ 5017 \\ +1203 \\ \hline \end{array}$$

adjusted estimate:

23. 
$$\begin{array}{r} 2.5 \\ 0.07 \\ +4.2 \\ \hline \end{array}$$

adjusted estimate:

**Remember:**

Add the front digits of the numbers with the greatest place value.  
Write zeroes for the other digits.  
Adjust the addition estimate with the back digits.

**Use front-end estimation to estimate the difference.**

24. 
$$\begin{array}{r} 8456 \\ -389 \\ \hline \end{array}$$

25. 
$$\begin{array}{r} 675 \\ -192 \\ \hline \end{array}$$

27. 
$$\begin{array}{r} 567 \\ -32 \\ \hline \end{array}$$

29. 
$$\begin{array}{r} 4.6 \\ -1.9 \\ \hline \end{array}$$

26. 
$$\begin{array}{r} 24.5 \\ -6.8 \\ \hline \end{array}$$

28. 
$$\begin{array}{r} 845 \\ -255 \\ \hline \end{array}$$

30. 
$$\begin{array}{r} 5643 \\ -678 \\ \hline \end{array}$$

**Remember:**

Subtract the front digits of the numbers with the greatest place value.  
Write zeroes for the other digits.

Name \_\_\_\_\_

**Add and Subtract Whole Numbers and Decimals****Add. Show your work.**

$$\begin{array}{r} 1. \\ 1,379,210 \\ +6,098,003 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \\ 41.28 \\ +70.01 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \\ 5,601,764 \\ +11,987,003 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \\ 104,768 \\ +100,587 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \\ 39.16 \\ +4.94 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \\ 70,011 \\ +20,999 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \\ 6.86 \\ +2.21 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \\ 55,008 \\ +46,711 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \\ 84.001 \\ +12.990 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \\ 212,121 \\ +212,097 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \\ 0.0054 \\ +0.0077 \\ \hline \end{array}$$

**Subtract. Show your work.**

$$\begin{array}{r} 12. \\ 77,403 \\ -23,011 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \\ 102,006 \\ -11,225 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \\ 23.117 \\ -9.446 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \\ 1.287 \\ -0.365 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \\ 325,250 \\ -15,840 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \\ 24.21 \\ -19.35 \\ \hline \end{array}$$

$$\begin{array}{r} 18. \\ 786 \\ -399 \\ \hline \end{array}$$

$$\begin{array}{r} 19. \\ 716,470 \\ -48,660 \\ \hline \end{array}$$

$$\begin{array}{r} 20. \\ 16.00 \\ -12.24 \\ \hline \end{array}$$

$$\begin{array}{r} 21. \\ 1305 \\ -933 \\ \hline \end{array}$$

$$\begin{array}{r} 22. \\ 1.08 \\ -0.15 \\ \hline \end{array}$$

$$\begin{array}{r} 23. \\ 121,823 \\ -112,733 \\ \hline \end{array}$$

**Remember:**

Use rounding to estimate before computing. Check to make sure your answer is reasonable.

Name \_\_\_\_\_

## Multiplication Patterns

**Multiply each whole number by a power or multiple of 10.**

$$\begin{aligned} 1. \quad & 25 \times 2 = \\ & 25 \times 20 = \\ & 25 \times 200 = \\ & 25 \times 2000 = \end{aligned}$$

$$\begin{aligned} 2. \quad & 4 \times 12 = \\ & 40 \times 12 = \\ & 400 \times 12 = \\ & 4000 \times 12 = \end{aligned}$$

$$\begin{aligned} 3. \quad & 1 \times 7 = \\ & 10 \times 70 = \\ & 100 \times 700 = \\ & 1000 \times 7000 = \end{aligned}$$

$$\begin{aligned} 4. \quad & 32 \times 3 = \\ & 32 \times 30 = \\ & 32 \times 300 = \\ & 32 \times 3000 = \end{aligned}$$

$$\begin{aligned} 5. \quad & 11 \times 5 = \\ & 110 \times 50 = \\ & 1100 \times 500 = \\ & 11000 \times 5000 = \end{aligned}$$

$$\begin{aligned} 6. \quad & 9 \times 4 = \\ & 9 \times 40 = \\ & 9 \times 400 = \\ & 9 \times 4000 = \end{aligned}$$

$$\begin{aligned} 7. \quad & 8 \times 14 = \\ & 80 \times 14 = \\ & 800 \times 14 = \\ & 8000 \times 14 = \end{aligned}$$

$$\begin{aligned} 8. \quad & 92 \times 6 = \\ & 92 \times 60 = \\ & 92 \times 600 = \\ & 92 \times 6000 = \end{aligned}$$

$$\begin{aligned} 9. \quad & 8 \times 7 = \\ & 80 \times 70 = \\ & 800 \times 700 = \\ & 8000 \times 7000 = \end{aligned}$$

$$\begin{aligned} 10. \quad & 3 \times 9 = \\ & 3 \times 90 = \\ & 3 \times 900 = \\ & 3 \times 9000 = \end{aligned}$$

$$\begin{aligned} 11. \quad & 45 \times 1 = \\ & 45 \times 10 = \\ & 45 \times 100 = \\ & 45 \times 1000 = \end{aligned}$$

**Multiply each decimal by a power of 10.**

12.  $10^2 \times 0.15 =$

\_\_\_\_\_

13.  $10^5 \times 0.006 =$

\_\_\_\_\_

14.  $10^3 \times 2.001 =$

\_\_\_\_\_

15.  $10^1 \times 0.018 =$

\_\_\_\_\_

16.  $10^7 \times 1.13 =$

\_\_\_\_\_

17.  $10^4 \times 0.002 =$

\_\_\_\_\_

18.  $10^6 \times 3.07 =$

\_\_\_\_\_

19.  $10^1 \times 0.00046 =$

\_\_\_\_\_

20.  $10^8 \times 2.19 =$

\_\_\_\_\_

21.  $10^9 \times 0.2 =$

\_\_\_\_\_

**Remember:**

Multiply the nonzero digits in the factors.

Write one zero to the right of the product for each zero in the factors.

**Remember:**

Count the number of zeroes in the power of 10.

Move the decimal point to the right one place for each zero.

Write as many zeroes in the product as needed to place the decimal point correctly.

Name \_\_\_\_\_

## Division Patterns

**Divide each whole number by a power or multiple of 10.**

$$\begin{aligned} 1. \quad & 45,000 \div 9 = \\ & 45,000 \div 90 = \\ & 45,000 \div 900 = \\ & 45,000 \div 9000 = \end{aligned}$$

$$\begin{aligned} 2. \quad & 80,000 \div 4 = \\ & 80,000 \div 40 = \\ & 80,000 \div 400 = \\ & 80,000 \div 4000 = \end{aligned}$$

$$\begin{aligned} 3. \quad & 15,000 \div 5 = \\ & 15,000 \div 50 = \\ & 15,000 \div 500 = \\ & 15,000 \div 5000 = \end{aligned}$$

$$\begin{aligned} 4. \quad & 56,000 \div 8 = \\ & 56,000 \div 80 = \\ & 56,000 \div 800 = \\ & 56,000 \div 8000 = \end{aligned}$$

$$\begin{aligned} 5. \quad & 9000 \div 9 = \\ & 9000 \div 90 = \\ & 9000 \div 900 = \\ & 9000 \div 9000 = \end{aligned}$$

$$\begin{aligned} 6. \quad & 14,000 \div 2 = \\ & 14,000 \div 20 = \\ & 14,000 \div 200 = \\ & 14,000 \div 2000 = \end{aligned}$$

$$\begin{aligned} 7. \quad & 36,000 \div 6 = \\ & 36,000 \div 60 = \\ & 36,000 \div 600 = \\ & 36,000 \div 6000 = \end{aligned}$$

$$\begin{aligned} 8. \quad & 21,000 \div 3 = \\ & 21,000 \div 30 = \\ & 21,000 \div 300 = \\ & 21,000 \div 3000 = \end{aligned}$$

$$\begin{aligned} 9. \quad & 6000 \div 1 = \\ & 6000 \div 10 = \\ & 6000 \div 100 = \\ & 6000 \div 1000 = \end{aligned}$$

$$\begin{aligned} 10. \quad & 49,000 \div 7 = \\ & 49,000 \div 70 = \\ & 49,000 \div 700 = \\ & 49,000 \div 7000 = \end{aligned}$$

$$\begin{aligned} 11. \quad & 36,000 \div 4 = \\ & 36,000 \div 40 = \\ & 36,000 \div 400 = \\ & 36,000 \div 4000 = \end{aligned}$$

**Divide each decimal by a power of 10.**

$$12. \quad 32.1 \div 10^4 =$$

\_\_\_\_\_

$$13. \quad 1.24 \div 10^1 =$$

\_\_\_\_\_

$$14. \quad 25.7 \div 10^5 =$$

\_\_\_\_\_

$$15. \quad 102.5 \div 10^3 =$$

\_\_\_\_\_

$$16. \quad 1.14 \div 10^2 =$$

\_\_\_\_\_

$$17. \quad 43.9 \div 10^7 =$$

\_\_\_\_\_

$$18. \quad 2.3 \div 10^9 =$$

\_\_\_\_\_

$$19. \quad 7.2 \div 10^8 =$$

\_\_\_\_\_

$$20. \quad 610.1 \div 10^6 =$$

\_\_\_\_\_

$$21. \quad 434.8 \div 10^1 =$$

\_\_\_\_\_

**Remember:**

Divide the nonzero digits.

To determine the number of zeroes in the quotient, subtract the number of zeroes in the divisor from the number of zeroes in the dividend.

**Remember:**

Count the number of zeroes in the divisor.

Move the decimal point to the left one place in the dividend for each zero in the divisor.

Write zeroes in the quotient as needed.

Name \_\_\_\_\_

## Estimate Products

Use rounding to estimate each product.

**Remember:**

Round each factor to its greatest place.

Multiply the rounded factors.

1.  $367 \times 103$

\_\_\_\_\_

2.  $0.7 \times 5.8$

\_\_\_\_\_

3.  $11.5 \times 9.7$

\_\_\_\_\_

4.  $761 \times 1009$

\_\_\_\_\_

5.  $93 \times 116$

\_\_\_\_\_

6.  $16 \times 31$

\_\_\_\_\_

7.  $1003 \times 1732$

\_\_\_\_\_

8.  $78 \times 34$

\_\_\_\_\_

9.  $87.5 \times 4.1$

\_\_\_\_\_

10.  $312 \times 2654$

\_\_\_\_\_

11.  $5.4 \times 121.9$

\_\_\_\_\_

12.  $1.7 \times 0.6$

\_\_\_\_\_

13.  $17 \times 18$

\_\_\_\_\_

14.  $4897 \times 310$

\_\_\_\_\_

15.  $19.2 \times 211.5$

\_\_\_\_\_

16.  $833 \times 4117$

\_\_\_\_\_

17.  $64 \times 29$

\_\_\_\_\_

18.  $999 \times 923$

\_\_\_\_\_

19.  $8.4 \times 17.2$

\_\_\_\_\_

20.  $3917 \times 18$

\_\_\_\_\_

21.  $552 \times 327$

\_\_\_\_\_

22.  $1001 \times 3007$

\_\_\_\_\_

23.  $12.2 \times 10.7$

\_\_\_\_\_

24.  $77 \times 11$

\_\_\_\_\_

25.  $3852 \times 390$

\_\_\_\_\_

26.  $3.3 \times 195.3$

\_\_\_\_\_

27.  $228 \times 558$

\_\_\_\_\_

28.  $11.3 \times 11.3$

\_\_\_\_\_

29.  $703 \times 47$

\_\_\_\_\_

30.  $74 \times 32$

\_\_\_\_\_

31.  $110 \times 4872$

\_\_\_\_\_

32.  $3645 \times 66$

\_\_\_\_\_

33.  $29.0 \times 0.78$

\_\_\_\_\_

34.  $221 \times 801$

\_\_\_\_\_

35.  $75 \times 110$

\_\_\_\_\_

36.  $94.2 \times 1.8$

\_\_\_\_\_

37.  $812 \times 55$

\_\_\_\_\_

38.  $576 \times 1987$

\_\_\_\_\_

Name \_\_\_\_\_

## Estimate Quotients

Use compatible numbers to estimate each quotient.

**Remember:**

Compatible numbers are numbers that are easy to compute with.

1.  $3190 \div 49$

\_\_\_\_\_

2.  $14.3 \div 6.8$

\_\_\_\_\_

3.  $48.23 \div 6.25$

\_\_\_\_\_

4.  $528 \div 16$

\_\_\_\_\_

5.  $97 \div 8$

\_\_\_\_\_

6.  $221 \div 37$

\_\_\_\_\_

7.  $4104 \div 812$

\_\_\_\_\_

8.  $56 \div 31$

\_\_\_\_\_

9.  $77.2 \div 10.6$

\_\_\_\_\_

10.  $935 \div 33$

\_\_\_\_\_

11.  $6.1 \div 1.8$

\_\_\_\_\_

12.  $19.5 \div 3.7$

\_\_\_\_\_

13.  $19 \div 17$

\_\_\_\_\_

14.  $7354 \div 491$

\_\_\_\_\_

15.  $72.2 \div 8.5$

\_\_\_\_\_

16.  $973 \div 98$

\_\_\_\_\_

17.  $63.8 \div 4.3$

\_\_\_\_\_

18.  $999 \div 525$

\_\_\_\_\_

19.  $44.8 \div 8.7$

\_\_\_\_\_

20.  $7221 \div 234$

\_\_\_\_\_

21.  $977 \div 189$

\_\_\_\_\_

22.  $6230 \div 22$

\_\_\_\_\_

23.  $12.1 \div 2.5$

\_\_\_\_\_

24.  $47 \div 14$

\_\_\_\_\_

25.  $3851 \div 380$

\_\_\_\_\_

26.  $21.3 \div 7.4$

\_\_\_\_\_

27.  $567 \div 198$

\_\_\_\_\_

28.  $33.8 \div 2.3$

\_\_\_\_\_

29.  $16.7 \div 4.3$

\_\_\_\_\_

30.  $89 \div 86$

\_\_\_\_\_

31.  $11.0 \div 5.1$

\_\_\_\_\_

32.  $8123 \div 79$

\_\_\_\_\_

33.  $62.4 \div 0.22$

\_\_\_\_\_

34.  $554 \div 9$

\_\_\_\_\_

35.  $75 \div 39$

\_\_\_\_\_

36.  $56.1 \div 8.1$

\_\_\_\_\_

37.  $0.265 \div 0.27$

\_\_\_\_\_

38.  $0.587 \div 0.197$

\_\_\_\_\_

Name \_\_\_\_\_

**Multiply Whole Numbers****Multiply. Show your work.**

1. 
$$\begin{array}{r} 61 \\ \times 12 \\ \hline \end{array}$$

2. 
$$\begin{array}{r} 17 \\ \times 191 \\ \hline \end{array}$$

\_\_\_\_\_

\_\_\_\_\_

3. 
$$\begin{array}{r} 21 \\ \times 205 \\ \hline \end{array}$$

4. 
$$\begin{array}{r} 96 \\ \times 11 \\ \hline \end{array}$$

5. 
$$\begin{array}{r} 71 \\ \times 21 \\ \hline \end{array}$$

6. 
$$\begin{array}{r} 18 \\ \times 310 \\ \hline \end{array}$$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

7. 
$$\begin{array}{r} 85 \\ \times 15 \\ \hline \end{array}$$

8. 
$$\begin{array}{r} 54 \\ \times 43 \\ \hline \end{array}$$

9. 
$$\begin{array}{r} 75 \\ \times 414 \\ \hline \end{array}$$

10. 
$$\begin{array}{r} 38 \\ \times 651 \\ \hline \end{array}$$

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11. 
$$\begin{array}{r} 49 \\ \times 704 \\ \hline \end{array}$$

12. 
$$\begin{array}{r} 61 \\ \times 30 \\ \hline \end{array}$$

13. 
$$\begin{array}{r} 93 \\ \times 189 \\ \hline \end{array}$$

14. 
$$\begin{array}{r} 25 \\ \times 25 \\ \hline \end{array}$$

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15. 
$$\begin{array}{r} 41 \\ \times 213 \\ \hline \end{array}$$

16. 
$$\begin{array}{r} 55 \\ \times 15 \\ \hline \end{array}$$

17. 
$$\begin{array}{r} 86 \\ \times 62 \\ \hline \end{array}$$

18. 
$$\begin{array}{r} 99 \\ \times 111 \\ \hline \end{array}$$

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19. 
$$\begin{array}{r} 38 \\ \times 31 \\ \hline \end{array}$$

20. 
$$\begin{array}{r} 72 \\ \times 612 \\ \hline \end{array}$$

21. 
$$\begin{array}{r} 47 \\ \times 118 \\ \hline \end{array}$$

22. 
$$\begin{array}{r} 81 \\ \times 90 \\ \hline \end{array}$$

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**Remember:**

To multiply by a two-digit number, multiply by ones, then by tens. Add the partial products.

To multiply by a three-digit number, multiply by ones, then by tens, then by hundreds. Add the partial products.

Name \_\_\_\_\_

## Divide Whole Numbers

**Divide. Show your work.**

1.  $567 \div 3$   
  
\_\_\_\_\_

**Remember:**

To divide by a 1-digit number, use short division. Divide to find the first digit of the quotient; multiply and subtract mentally; and write each remainder in front of the next digit in the dividend. Repeat the steps until the division is completed.

To divide by a 2- or 3-digit number, decide where to begin the quotient. If there are not enough hundreds, the quotient begins in the tens place. Divide the tens and ones.

2.  $4579 \div 121$   
  
\_\_\_\_\_

3.  $1952 \div 76$   
  
\_\_\_\_\_

4.  $8054 \div 9$   
  
\_\_\_\_\_

5.  $34,616 \div 623$   
  
\_\_\_\_\_

6.  $572 \div 4$   
  
\_\_\_\_\_

7.  $5329 \div 87$   
  
\_\_\_\_\_

8.  $41,005 \div 125$   
  
\_\_\_\_\_

9.  $443 \div 6$   
  
\_\_\_\_\_

10.  $3911 \div 54$   
  
\_\_\_\_\_

11.  $6781 \div 217$   
  
\_\_\_\_\_

12.  $731 \div 6$   
  
\_\_\_\_\_

13.  $5490 \div 24$   
  
\_\_\_\_\_

Name \_\_\_\_\_

## Multiply Decimals

Find the product. Show your work.

1. 
$$\begin{array}{r} 3.14 \\ \times 12 \\ \hline \end{array}$$

2. 
$$\begin{array}{r} 0.406 \\ \times 0.62 \\ \hline \end{array}$$

3. 
$$\begin{array}{r} 7.99 \\ \times 0.11 \\ \hline \end{array}$$

4. 
$$\begin{array}{r} 0.43 \\ \times 73 \\ \hline \end{array}$$

5. 
$$\begin{array}{r} 2.75 \\ \times 2.5 \\ \hline \end{array}$$

6. 
$$\begin{array}{r} 0.81 \\ \times 22 \\ \hline \end{array}$$

7. 
$$\begin{array}{r} 1.13 \\ \times 0.8 \\ \hline \end{array}$$

8. 
$$\begin{array}{r} 2.01 \\ \times 38 \\ \hline \end{array}$$

9. 
$$\begin{array}{r} 0.345 \\ \times 1.2 \\ \hline \end{array}$$

10. 
$$\begin{array}{r} 92.15 \\ \times 0.33 \\ \hline \end{array}$$

11. 
$$\begin{array}{r} 0.346 \\ \times 0.81 \\ \hline \end{array}$$

12. 
$$\begin{array}{r} 4.13 \\ \times 10 \\ \hline \end{array}$$

13. 
$$\begin{array}{r} 7.1 \\ \times 1.7 \\ \hline \end{array}$$

14. 
$$\begin{array}{r} 0.123 \\ \times 25 \\ \hline \end{array}$$

15. 
$$\begin{array}{r} 4.01 \\ \times 8.1 \\ \hline \end{array}$$

16. 
$$\begin{array}{r} 0.111 \\ \times 3.3 \\ \hline \end{array}$$

17. 
$$\begin{array}{r} 0.35 \\ \times 24 \\ \hline \end{array}$$

18. 
$$\begin{array}{r} 7.54 \\ \times 0.7 \\ \hline \end{array}$$

19. 
$$\begin{array}{r} 6.32 \\ \times 4 \\ \hline \end{array}$$

20. 
$$\begin{array}{r} 1.41 \\ \times 55 \\ \hline \end{array}$$

21. 
$$\begin{array}{r} 0.60 \\ \times 2.4 \\ \hline \end{array}$$

22. 
$$\begin{array}{r} 9.01 \\ \times 5 \\ \hline \end{array}$$

23. 
$$\begin{array}{r} 47.13 \\ \times 0.2 \\ \hline \end{array}$$

24. 
$$\begin{array}{r} 3.08 \\ \times 1.3 \\ \hline \end{array}$$

25. 
$$\begin{array}{r} 0.414 \\ \times 65 \\ \hline \end{array}$$

26. 
$$\begin{array}{r} 1.98 \\ \times 45 \\ \hline \end{array}$$

**Remember:**

Multiply as you would with whole numbers.

Count the number of decimal places in both factors.

Mark off the same number of decimal places in the product.

Name \_\_\_\_\_

## Divide Decimals

**Find the quotient. Show your work.**

1.  $4.32 \div 0.6$

2.  $1.56 \div 0.4$

So  $4.32 \div 0.6 =$  \_\_\_\_\_

So  $1.56 \div 0.4 =$  \_\_\_\_\_

3.  $55.1 \div 0.25$

4.  $3.75 \div 0.3$

5.  $0.910 \div 0.7$

So  $55.1 \div 0.25 =$  \_\_\_\_\_

So  $3.75 \div 0.3 =$  \_\_\_\_\_

So  $0.910 \div 0.7 =$  \_\_\_\_\_

6.  $7.26 \div 1.2$

7.  $0.081 \div 0.09$

8.  $16.33 \div 7.1$

So  $7.26 \div 1.2 =$  \_\_\_\_\_

So  $0.081 \div 0.09 =$  \_\_\_\_\_

So  $16.33 \div 7.1 =$  \_\_\_\_\_

9.  $6.84 \div 3.8$

10.  $42.84 \div 8.4$

11.  $99.15 \div 0.3$

So  $6.84 \div 3.8 =$  \_\_\_\_\_

So  $42.84 \div 8.4 =$  \_\_\_\_\_

So  $99.15 \div 0.3 =$  \_\_\_\_\_

**Remember:**

Move the decimal point in the divisor to form a whole number divisor.

Move the decimal point in the dividend to the right the same number of places.

Write the decimal point in the quotient directly above the decimal point in the dividend.

Divide as you would with whole numbers.

Name \_\_\_\_\_

## Fractions Greater than or Equal to 1

Rename each mixed number as a fraction.

**Remember:**

Multiply the whole number by the denominator.

Add the product to the numerator.

Write the sum as the numerator and the given denominator as the denominator.

1.  $1\frac{1}{3} =$  \_\_\_\_\_

2.  $5\frac{1}{2} =$  \_\_\_\_\_

3.  $2\frac{1}{4} =$  \_\_\_\_\_

4.  $4\frac{1}{8} =$  \_\_\_\_\_

5.  $2\frac{5}{7} =$  \_\_\_\_\_

6.  $3\frac{4}{5} =$  \_\_\_\_\_

7.  $8\frac{1}{2} =$  \_\_\_\_\_

8.  $1\frac{3}{4} =$  \_\_\_\_\_

9.  $5\frac{4}{5} =$  \_\_\_\_\_

10.  $9\frac{1}{3} =$  \_\_\_\_\_

11.  $2\frac{1}{6} =$  \_\_\_\_\_

12.  $6\frac{5}{8} =$  \_\_\_\_\_

13.  $7\frac{1}{4} =$  \_\_\_\_\_

14.  $1\frac{5}{9} =$  \_\_\_\_\_

15.  $2\frac{3}{8} =$  \_\_\_\_\_

16.  $3\frac{5}{6} =$  \_\_\_\_\_

17.  $4\frac{3}{5} =$  \_\_\_\_\_

18.  $5\frac{1}{7} =$  \_\_\_\_\_

19.  $6\frac{1}{3} =$  \_\_\_\_\_

20.  $8\frac{7}{9} =$  \_\_\_\_\_

21.  $7\frac{1}{5} =$  \_\_\_\_\_

Name \_\_\_\_\_

### Rename each fraction as a mixed number.

22.  $\frac{45}{6} =$

\_\_\_\_\_

23.  $\frac{15}{2} =$

\_\_\_\_\_

24.  $\frac{31}{5} =$

\_\_\_\_\_

25.  $\frac{54}{7} =$

\_\_\_\_\_

26.  $\frac{21}{2} =$

\_\_\_\_\_

27.  $\frac{17}{6} =$

\_\_\_\_\_

28.  $\frac{64}{9} =$

\_\_\_\_\_

29.  $\frac{79}{8} =$

\_\_\_\_\_

30.  $\frac{39}{5} =$

\_\_\_\_\_

31.  $\frac{41}{6} =$

\_\_\_\_\_

32.  $\frac{92}{9} =$

\_\_\_\_\_

33.  $\frac{29}{3} =$

\_\_\_\_\_

34.  $\frac{83}{8} =$

\_\_\_\_\_

35.  $\frac{74}{9} =$

\_\_\_\_\_

36.  $\frac{18}{4} =$

\_\_\_\_\_

37.  $\frac{32}{7} =$

\_\_\_\_\_

38.  $\frac{85}{6} =$

\_\_\_\_\_

**Remember:**

Divide the numerator by the denominator.

Write the quotient as the whole number part.

If there is a remainder, write it over the denominator and express the fraction in simplest form.

Name \_\_\_\_\_

**Add and Subtract Fractions****Add. Write the sum in simplest form.**

1.  $\frac{2}{3} + \frac{1}{4}$

2.  $\frac{2}{5} + \frac{5}{6}$

\_\_\_\_\_

\_\_\_\_\_

3.  $\frac{7}{8} + \frac{1}{2}$

4.  $\frac{3}{4} + \frac{1}{9}$

5.  $\frac{1}{3} + \frac{1}{5}$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

6.  $\frac{2}{7} + \frac{2}{5}$

7.  $\frac{7}{9} + \frac{1}{2}$

8.  $\frac{2}{3} + \frac{4}{5}$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

9.  $\frac{5}{6} + \frac{1}{2}$

10.  $\frac{7}{9} + \frac{1}{3}$

11.  $\frac{1}{6} + \frac{1}{4}$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

12.  $\frac{8}{11} + \frac{2}{3}$

13.  $\frac{5}{7} + \frac{2}{3}$

14.  $\frac{1}{36} + \frac{5}{6}$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Remember:**

Find the least common denominator (LCD) of the fractions.

Rename each fraction as an equivalent fraction with the LCD as the denominator.

Add. Express the sum in simplest form.

Name \_\_\_\_\_

**Subtract. Write the difference in simplest form.**

15.  $\frac{6}{7} - \frac{3}{5}$

16.  $\frac{1}{2} - \frac{1}{4}$

**Remember:**

Find the least common denominator (LCD) of the fractions.

Rename each fraction as an equivalent fraction with the LCD as the denominator.

Subtract. Express the difference in simplest form.

17.  $\frac{5}{6} - \frac{2}{5}$

18.  $\frac{2}{5} - \frac{1}{3}$

19.  $\frac{4}{7} - \frac{2}{6}$

20.  $\frac{3}{4} - \frac{2}{5}$

21.  $\frac{5}{9} - \frac{2}{5}$

22.  $\frac{3}{4} - \frac{5}{7}$

23.  $\frac{8}{11} - \frac{3}{7}$

24.  $\frac{5}{8} - \frac{2}{5}$

25.  $\frac{4}{5} - \frac{1}{3}$

26.  $\frac{7}{12} - \frac{1}{6}$

27.  $\frac{9}{10} - \frac{1}{5}$

28.  $\frac{7}{14} - \frac{3}{7}$

29.  $\frac{1}{2} - \frac{1}{9}$

30.  $\frac{9}{21} - \frac{1}{3}$

31.  $\frac{8}{15} - \frac{1}{2}$

Name \_\_\_\_\_

## Multiply Fractions

**Multiply.**

1.  $\frac{2}{5} \times \frac{1}{2} =$  \_\_\_\_\_

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

3.  $\frac{1}{2} \times \frac{3}{8} =$  \_\_\_\_\_

4.  $\frac{8}{9} \times \frac{1}{4} =$  \_\_\_\_\_

5.  $\frac{1}{6} \times \frac{1}{7} =$  \_\_\_\_\_

6.  $\frac{3}{8} \times \frac{2}{3} =$  \_\_\_\_\_

7.  $\frac{6}{8} \times \frac{1}{4} =$  \_\_\_\_\_

8.  $\frac{4}{10} \times \frac{2}{3} =$  \_\_\_\_\_

9.  $\frac{1}{3} \times \frac{1}{4} =$  \_\_\_\_\_

10.  $\frac{7}{9} \times \frac{4}{7} =$  \_\_\_\_\_

11.  $\frac{1}{2} \times \frac{3}{4} =$  \_\_\_\_\_

12.  $\frac{1}{9} \times \frac{2}{3} =$  \_\_\_\_\_

13.  $\frac{4}{5} \times \frac{1}{6} =$  \_\_\_\_\_

14.  $\frac{2}{8} \times \frac{1}{8} =$  \_\_\_\_\_

**Multiply using the greatest common factor.**

15.  $\frac{2}{5} \times \frac{15}{16} =$  \_\_\_\_\_

16.  $\frac{5}{8} \times \frac{8}{9} =$  \_\_\_\_\_

17.  $\frac{3}{4} \times \frac{6}{7} =$  \_\_\_\_\_

18.  $\frac{1}{5} \times \frac{20}{21} =$  \_\_\_\_\_

19.  $\frac{9}{11} \times \frac{22}{27} =$  \_\_\_\_\_

20.  $\frac{2}{7} \times \frac{7}{8} =$  \_\_\_\_\_

21.  $\frac{8}{12} \times \frac{6}{7} =$  \_\_\_\_\_

22.  $\frac{4}{9} \times \frac{6}{10} =$  \_\_\_\_\_

23.  $\frac{4}{16} \times \frac{1}{4} =$  \_\_\_\_\_

24.  $\frac{2}{5} \times \frac{5}{8} =$  \_\_\_\_\_

25.  $\frac{3}{7} \times \frac{14}{15} =$  \_\_\_\_\_

26.  $\frac{14}{20} \times \frac{4}{7} =$  \_\_\_\_\_

27.  $\frac{6}{10} \times \frac{5}{6} =$  \_\_\_\_\_

28.  $\frac{4}{5} \times \frac{25}{28} =$  \_\_\_\_\_

**Remember:**

Multiply the numerators. Then multiply the denominators.

Write the product in simplest form.

**Remember:**Divide *any* numerator and denominator by the greatest common factor (GCF).

Multiply the numerators. Then multiply the denominators. The product will be in simplest form.

Name \_\_\_\_\_

## Divide Fractions

**Divide.**

1.  $\frac{4}{9} \div \frac{1}{3} =$

\_\_\_\_\_

2.  $\frac{6}{10} \div \frac{4}{5} =$

\_\_\_\_\_

3.  $\frac{2}{7} \div \frac{2}{3} =$

\_\_\_\_\_

4.  $\frac{5}{8} \div \frac{1}{2} =$

\_\_\_\_\_

5.  $\frac{6}{12} \div \frac{6}{10} =$

\_\_\_\_\_

6.  $\frac{8}{20} \div \frac{2}{4} =$

\_\_\_\_\_

7.  $\frac{5}{9} \div \frac{1}{3} =$

\_\_\_\_\_

8.  $\frac{14}{15} \div \frac{2}{3} =$

\_\_\_\_\_

9.  $\frac{11}{22} \div \frac{1}{2} =$

\_\_\_\_\_

10.  $\frac{2}{3} \div \frac{1}{9} =$

\_\_\_\_\_

11.  $\frac{12}{24} \div \frac{3}{4} =$

\_\_\_\_\_

12.  $\frac{5}{6} \div \frac{1}{4} =$

\_\_\_\_\_

13.  $\frac{9}{10} \div \frac{3}{5} =$

\_\_\_\_\_

14.  $\frac{1}{3} \div \frac{1}{9} =$

\_\_\_\_\_

**Remember:**

Multiply by the reciprocal of the divisor. Simplify using the GCF, where possible. Then multiply the numerators and the denominators.

Rename the product as a whole or mixed number when needed.

Name \_\_\_\_\_

**Divide.**

15.  $\frac{16}{18} \div \frac{2}{9} =$

\_\_\_\_\_

16.  $\frac{4}{7} \div \frac{4}{1} =$

\_\_\_\_\_

17.  $\frac{5}{8} \div \frac{1}{12} =$

\_\_\_\_\_

18.  $\frac{1}{10} \div \frac{1}{2} =$

\_\_\_\_\_

19.  $\frac{2}{8} \div \frac{2}{5} =$

\_\_\_\_\_

20.  $\frac{3}{4} \div \frac{1}{6} =$

\_\_\_\_\_