

**Chapter
2**

Whole Number Multiplication and Division

Practice 1 Using a Calculator

**Add.**

1. $215 + 9,843 =$ _____ 2. $6,789 + 18 =$ _____
3. $97 + 8,154 =$ _____ 4. $1,693 + 8,157 =$ _____

**Subtract.**

5. $8,215 - 79 =$ _____ 6. $6,286 - 129 =$ _____
7. $2,159 - 1,998 =$ _____ 8. $26,145 - 9,354 =$ _____

**Multiply.**

9. $359 \times 12 =$ _____ 10. $217 \times 58 =$ _____
11. $1,975 \times 5 =$ _____ 12. $7,050 \times 8 =$ _____

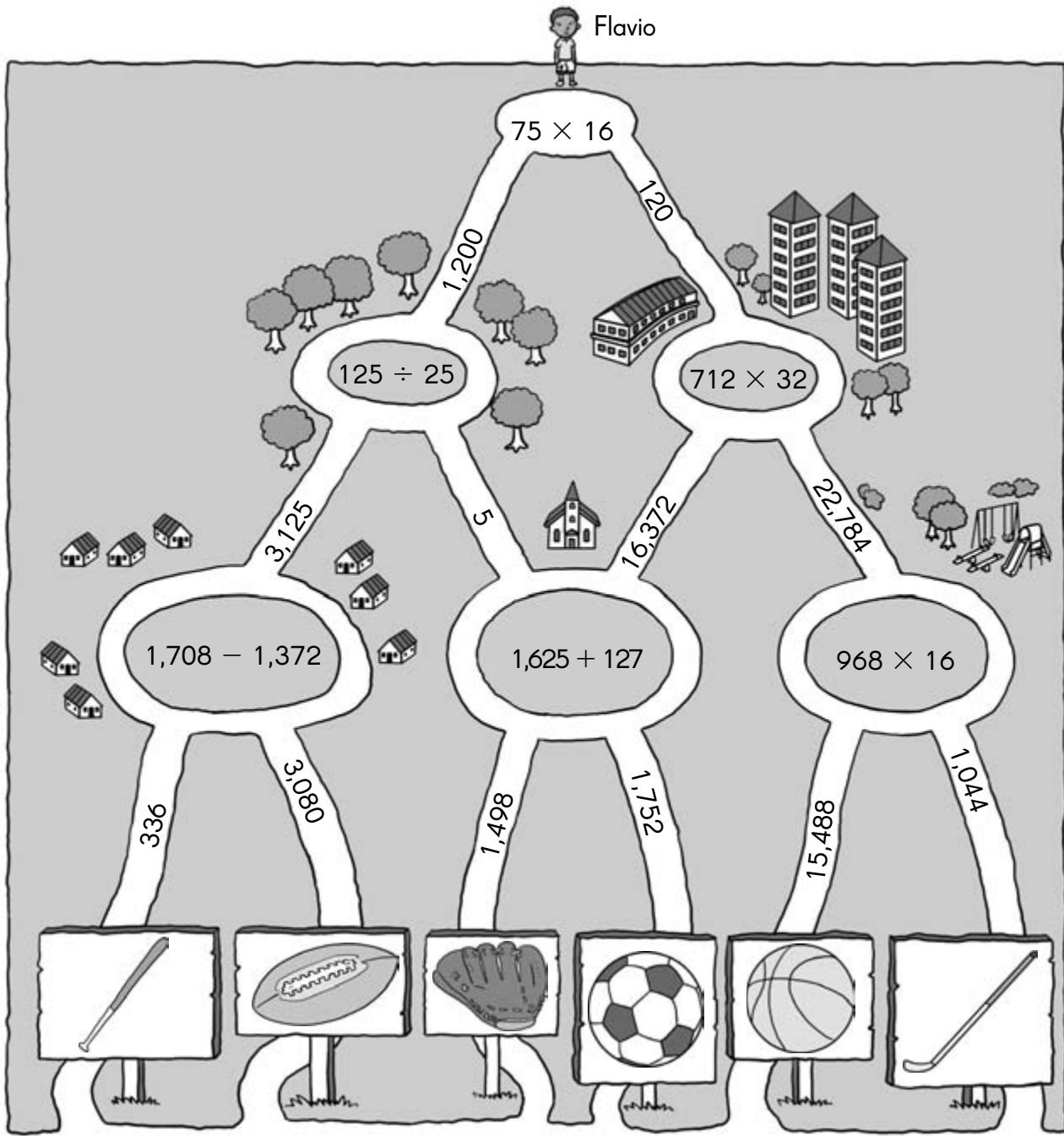
**Divide.**

13. $504 \div 9 =$ _____ 14. $4,104 \div 6 =$ _____
15. $8,160 \div 85 =$ _____ 16. $17,604 \div 18 =$ _____



**Only one path after each problem has the correct answer.
Trace Flavio's path by choosing the paths with the correct answers.**

17.



The prize at the end of Flavio's path is:

Practice 2 Multiplying by Tens, Hundreds, or Thousands

Multiply.

1. $47 \times 10 =$ _____

2. $38 \times 10 =$ _____

3. $109 \times 10 =$ _____

4. $521 \times 10 =$ _____

5. $7,140 \times 10 =$ _____

6. $1,503 \times 10 =$ _____

7. $3,702 \times 10 =$ _____

8. $9,342 \times 10 =$ _____

Find the missing factors.

9. $96 \times$ _____ $= 960$

10. _____ $\times 10 = 700$

11. $514 \times$ _____ $= 5,140$

12. _____ $\times 10 = 5,000$

13. $308 \times$ _____ $= 3,080$

14. _____ $\times 10 = 4,020$

15. $2,096 \times$ _____ $= 20,960$

16. _____ $\times 10 = 91,760$

Complete.*Example* _____

$$\begin{aligned}65 \times 40 &= (65 \times \underline{\quad}^4) \times 10 \\&= \underline{260} \times 10 \\&= \underline{2,600}\end{aligned}$$

17. 39×30

$$\begin{aligned}&= (39 \times \underline{\quad}) \times 10 \\&= \underline{\quad} \times 10 \\&= \underline{\quad}\end{aligned}$$

18. 143×90

$$\begin{aligned}&= (143 \times \underline{\quad}) \times \underline{\quad} \\&= \underline{\quad} \times \underline{\quad} \\&= \underline{\quad}\end{aligned}$$

19. 360×30

$$\begin{aligned}&= (360 \times \underline{\quad}) \times \underline{\quad} \\&= \underline{\quad} \times \underline{\quad} \\&= \underline{\quad}\end{aligned}$$

20. 285×80

$$\begin{aligned}&= (285 \times \underline{\quad}) \times \underline{\quad} \\&= \underline{\quad} \times \underline{\quad} \\&= \underline{\quad}\end{aligned}$$

Name: _____

Date: _____

Multiply.

21. $7 \times 1,000 =$ _____

R

22. $86 \times 100 =$ _____

T

23. $70 \times 1,000 =$ _____

A

24. $95 \times 100 =$ _____

E

25. $400 \times 1,000 =$ _____

L

26. $217 \times 100 =$ _____

P

27. $726 \times 1,000 =$ _____

I

28. $803 \times 100 =$ _____

S

29. $8,032 \times 1,000 =$ _____

O

30. $3,810 \times 100 =$ _____

B

31. $3,936 \times 1,000 =$ _____

N

What cat has long, fine hair, and a snubbed nose?

Write the letters that match the answers below to find out.



Find the missing factors.

32. $17 \times \underline{\hspace{2cm}} = 1,700$

33. $\underline{\hspace{2cm}} \times 1,000 = 25,000$

34. $\underline{\hspace{2cm}} \times 1,000 = 478,000$

35. $320 \times \underline{\hspace{2cm}} = 320,000$

36. $1,315 \times \underline{\hspace{2cm}} = 131,500$

37. $\underline{\hspace{2cm}} \times 1,000 = 2,662,000$

38. $4,668 \times \underline{\hspace{2cm}} = 466,800$

39. $\underline{\hspace{2cm}} \times 100 = 576,000$

Complete.

Example

$$4 \times 300 = (4 \times \underline{\hspace{2cm}}) \times 100$$

$$= \underline{\hspace{2cm}} \times 100$$

$$= \underline{\hspace{2cm}}$$

40. $12 \times 500 = (12 \times \underline{\hspace{2cm}}) \times 100$

$$= \underline{\hspace{2cm}} \times 100$$

$$= \underline{\hspace{2cm}}$$

41. $700 \times 900 = (700 \times \underline{\hspace{2cm}}) \times 100$

$$= \underline{\hspace{2cm}} \times 100$$

$$= \underline{\hspace{2cm}}$$

Complete.

42. 814×700

$= (814 \times \underline{\hspace{2cm}}) \times 100$

$= \underline{\hspace{2cm}} \times 100$

$= \underline{\hspace{2cm}}$

43. $5,400 \times 800$

$= (5,400 \times \underline{\hspace{2cm}}) \times 100$

$= \underline{\hspace{2cm}} \times 100$

$= \underline{\hspace{2cm}}$

44. $5 \times 7,000$

$= (5 \times \underline{\hspace{2cm}}) \times 1,000$

$= \underline{\hspace{2cm}} \times 1,000$

$= \underline{\hspace{2cm}}$

45. $8 \times 5,000$

$= (8 \times \underline{\hspace{2cm}}) \times 1,000$

$= \underline{\hspace{2cm}} \times 1,000$

$= \underline{\hspace{2cm}}$

46. $12 \times 3,000$

$= (12 \times \underline{\hspace{2cm}}) \times 1,000$

$= \underline{\hspace{2cm}} \times 1,000$

$= \underline{\hspace{2cm}}$

47. $15 \times 2,000$

$= (15 \times \underline{\hspace{2cm}}) \times 1,000$

$= \underline{\hspace{2cm}} \times 1,000$

$= \underline{\hspace{2cm}}$

48. $300 \times 4,000$

$= (300 \times \underline{\hspace{2cm}}) \times 1,000$

$= \underline{\hspace{2cm}} \times 1,000$

$= \underline{\hspace{2cm}}$

49. $663 \times 6,000$

$= (663 \times \underline{\hspace{2cm}}) \times 1,000$

$= \underline{\hspace{2cm}} \times 1,000$

$= \underline{\hspace{2cm}}$

Multiply.

	Multiplying by Tens	Multiplying by Hundreds	Multiplying by Thousands
50.	17×70 =	17×700 =	$17 \times 7,000$ =
51.	65×30 =	65×300 =	$65 \times 3,000$ =
52.	90×40 =	90×400 =	$90 \times 4,000$ =
53.	812×10 =	812×100 =	$812 \times 1,000$ =
54.	634×20 =	634×200 =	$634 \times 2,000$ =

Find the missing factors.

55. $31 \times \underline{\hspace{2cm}} = 3,100$

56. $30 \times \underline{\hspace{2cm}} = 90,000$

57. $103 \times \underline{\hspace{2cm}} = 3,090$

58. $25 \times \underline{\hspace{2cm}} = 5,000$

The owner of an electronics store wants to estimate the amount she will receive from the sales of these items:

- 58 all-in-one printers at \$219 each.
652 radio clocks at \$73 each.
99 portable audio players at \$217 each.
39 plasma television sets at \$4,156 each.

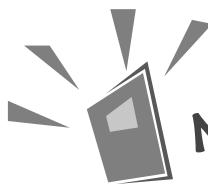


Estimate the amount she receives for each type of item by rounding to the greatest place value. Then, estimate the total amount from the sales of the items.

- 59.** $58 \times \$219$ rounds to _____ $\times \$$ _____ = \$ _____
- 60.** $652 \times \$73$ rounds to _____ $\times \$$ _____ = \$ _____
- 61.** $99 \times \$217$ rounds to _____ $\times \$$ _____ = \$ _____
- 62.** $39 \times \$4,156$ rounds to _____ $\times \$$ _____ = \$ _____
- 63.** The total estimated amount is

 $\$$ _____ + $\$$ _____ + $\$$ _____ + $\$$ _____

 $= \$$ _____



Math Journal



Multiply. Explain how you can check if your answer is reasonable.

$$184 \times 97$$

Practice 3 Multiplying by 2-Digit Numbers

Multiply. Estimate to check if your answers are reasonable.

Example _____

$$\begin{aligned} 43 \times 20 &= (43 \times 2) \times 10 \\ &= 86 \times 10 \\ &= 860 \end{aligned}$$

or

$$\begin{array}{r} 43 \\ \times 20 \\ \hline 860 \end{array}$$

43 rounds to 40.

$$40 \times 20 = 800$$

The answer is reasonable.

1. $59 \times 40 =$

2. $91 \times 14 =$

3. $96 \times 15 =$

4. $23 \times 17 =$

Multiply. Estimate to check if your answers are reasonable.

Example

$$\begin{aligned} 510 \times 30 &= (510 \times 3) \times 10 \\ &= 1,530 \times 10 \\ &= 15,300 \end{aligned}$$

or

$$\begin{array}{r} 510 \\ \times 30 \\ \hline 15,300 \end{array}$$

510 rounds to 500.

$$500 \times 30 = 15,000$$

The answer is reasonable.

5. $750 \times 60 =$

6. $614 \times 31 =$

7. $556 \times 47 =$

8. $843 \times 25 =$

Multiply. Estimate to check if your answers are reasonable.*Example* _____

$$\begin{aligned}1,970 \times 20 &= (1,970 \times 2) \times 10 \\&= 3,940 \times 10 \\&= 39,400\end{aligned}$$

or

$$\begin{array}{r} 1,970 \\ \times \quad 20 \\ \hline 39,400 \end{array}$$

1,970 rounds to 2,000.

$$2,000 \times 20 = 40,000$$

The answer is reasonable.

9. $3,610 \times 60 =$

10. $8,142 \times 16 =$

11. $5,193 \times 35 =$

12. $4,563 \times 29 =$

Multiply. Estimate to check if your answers are reasonable.

13. $85 \times 35 =$

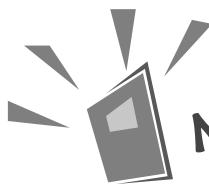
14. $78 \times 21 =$

15. $738 \times 96 =$

16. $921 \times 57 =$

17. $3,072 \times 82 =$

18. $7,846 \times 63 =$



Math Journal

Jodi estimated these products.

- a. $2,892 \times 21$ rounds to $3,000 \times 20 = 60,000$
- b. $2,743 \times 18$ rounds to $3,000 \times 20 = 60,000$

She then worked out the actual answers. Even though the estimated answers were the same, Jodi found that the actual answers were very different from each other.

1. In which case is the estimate closer to the actual answer?
Explain why.

- 2.** If an estimate does not make your answer seem reasonable, what can you do to make sure you have done your work correctly?

Practice 4 Dividing by Tens, Hundreds, or Thousands

Complete.

1. $100 \div 10 = \underline{\hspace{2cm}}$

2. $670 \div 10 = \underline{\hspace{2cm}}$

3. $1,050 \div \underline{\hspace{2cm}} = 105$

4. $\underline{\hspace{2cm}} \div 10 = 1,974$

5. $52,260 \div 10 = \underline{\hspace{2cm}}$

6. $30,500 \div \underline{\hspace{2cm}} = 3,050$

Complete.

Example _____

$$5,610 \div 30$$

$$= (5,610 \div \underline{\hspace{2cm}10}) \div 3$$

$$= \underline{\hspace{2cm}561} \div 3$$

$$= \underline{\hspace{2cm}187} \quad \textcircled{U}$$

7. $3,000 \div 60$

$$= (3,000 \div 10) \div \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}} \div 6$$

$$= \underline{\hspace{2cm}} \quad \textcircled{M}$$

8. $1,040 \div 40$

$$= (1,040 \div \underline{\hspace{2cm}}) \div \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}} \div \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}} \quad \textcircled{A}$$

Complete.

9. $8,700 \div 60$

$$= (8,700 \div \underline{\hspace{2cm}}) \div \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}} \div \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}} \textcircled{T}$$

10. $3,450 \div 50$

$$= (3,450 \div \underline{\hspace{2cm}}) \div \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}} \div \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}} \textcircled{R}$$

11. $34,230 \div 70$

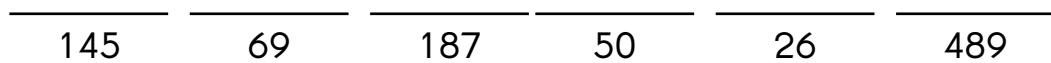
$$= (34,230 \div \underline{\hspace{2cm}}) \div \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}} \div \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}} \textcircled{N}$$

Which U.S. president had a sign on his desk that said 'The buck stops here'?
Write the letters on pages 43 and 44 that match the answers below to find out.

HARRY S.



Name: _____

Date: _____

Divide.

12. $3,400 \div 100 =$ _____

(P)

13. $560,000 \div 1,000 =$ _____

(H)

14. $5,000 \div 100 =$ _____

(S)

15. $38,000 \div 1,000 =$ _____

(I)

16. $7,700 \div 100 =$ _____

(N)

17. $360,000 \div 1,000 =$ _____

(M)

18. $2,000 \div 100 =$ _____

(B)

19. $415,000 \div 1,000 =$ _____

(A)

To which class of animals does the salamander belong?
Write the letters that match the answers below to find out.

415

360

34

560

38

20

38

415

77

50

Complete.

Example

$$600 \div 300$$

$$= (600 \div \underline{100}) \div \underline{3}$$

$$= \underline{6} \div \underline{3}$$

$$= \underline{2}$$

20. $1,600 \div 400$

$$= (1,600 \div \underline{\hspace{2cm}}) \div \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}} \div \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}}$$

21. $81,000 \div 900$

$$= (81,000 \div \underline{\hspace{2cm}}) \div \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}} \div \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}}$$

22. $31,500 \div 500$

$$= (31,500 \div \underline{\hspace{2cm}}) \div \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}} \div \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}}$$

Complete.

Example

$$9,000 \div 3,000$$

$$= (9,000 \div \underline{1,000}) \div \underline{3}$$

$$= \underline{9} \div \underline{3}$$

$$= \underline{3}$$

23. $56,000 \div 7,000$

$$= (56,000 \div \underline{\hspace{2cm}}) \div \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}} \div \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}}$$

24. $133,000 \div 7,000$

$$= (133,000 \div \underline{\hspace{2cm}}) \div \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}} \div \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}}$$

25. $120,000 \div 8,000$

$$= (120,000 \div \underline{\hspace{2cm}}) \div \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}} \div \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}}$$

Divide.

	Dividing by Tens	Dividing by Hundreds	Dividing by Thousands
26.	$360 \div 40$ =	$3,600 \div 400$ =	$36,000 \div 4,000$ =
27.	$1,190 \div 70$ =	$11,900 \div 700$ =	$119,000 \div 7,000$ =
28.	$12,680 \div 20$ =	$126,800 \div 200$ =	$1,268,000 \div 2,000$ =
29.	$23,200 \div 80$ =	$232,000 \div 800$ =	$2,320,000 \div 8,000$ =

Complete.

30. $430 \div \underline{\hspace{1cm}} = 43$

31. $9,000 \div \underline{\hspace{1cm}} = 30$

32. $49,000 \div \underline{\hspace{1cm}} = 7$

33. $2,400 \div \underline{\hspace{1cm}} = 120$

34. $64,000 \div \underline{\hspace{1cm}} = 160$

35. $85,000 \div \underline{\hspace{1cm}} = 17$

Estimate each quotient.

Example

$$6,452 \div 27 \text{ rounds to } 6,000 \div 30 = 200$$

36. $7,865 \div 41$ rounds to _____ \div _____ = _____

37. $9,125 \div 345$ rounds to _____ \div _____ = _____

38. $9,825 \div 206$ rounds to _____ \div _____ = _____

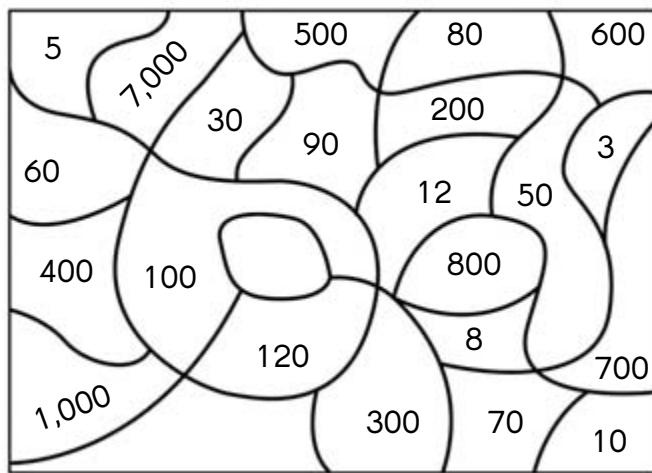
39. $7,226 \div 871$ rounds to _____ \div _____ = _____

40. $5,299 \div 49$ rounds to _____ \div _____ = _____

41. $3,654 \div 27$ rounds to _____ \div _____ = _____

What number can be evenly divided by 3, 7, and 9?

Color the numbers below that match the answers above to find out.



Practice 5 Dividing by 2-Digit Numbers

Divide.

Example _____

$$\begin{aligned} 340 \div 20 &= 34 \div 2 \\ &= 17 \end{aligned}$$

1. $560 \div 80 =$

2. $630 \div 60 =$

3. $590 \div 30 =$

4. $190 \div 90 =$

5. $360 \div 50 =$

Divide.

Example

$$43 \div 12$$

12 rounds to 10.

$$4 \times 10 = 40$$

The quotient is about 4.

$$4 \times 12 = 48$$

The estimated quotient is too big. Try 3.

$$\begin{array}{r} 3 \text{ R } 7 \\ 12) 4 \ 3 \\ \underline{-} \ 3 \ 6 \\ \hline 7 \end{array}$$

$$43 \div 12 = 3 \text{ R } 7$$

6. $98 \div 16 =$

7. $65 \div 24 =$

8. $94 \div 37 =$

Divide.*Example* _____

$$215 \div 51$$

215 rounds to 200.

$$4 \times 50 = 200$$

The quotient is about 4.

$$\begin{array}{r} 4 \text{ R } 11 \\ 51 \overline{)2\,1\,5} \\ 2\,0\,4 \\ \hline 1\,1 \end{array}$$

$$215 \div 51 = 4 \text{ R } 11$$

9. $362 \div 60 =$

10. $178 \div 45 =$

11. $850 \div 88 =$

12. $273 \div 59 =$

Divide.

Example

$$354 \div 14$$

$$\begin{array}{r} 25 R 4 \\ 14) 354 \\ \underline{-28} \\ 74 \\ \underline{-70} \\ 4 \end{array}$$

3 hundreds 5 tens = 35 tens

35 tens \div 14 = 2 tens R 7 tens

7 tens 4 ones = 74 ones

74 \div 14 = 5 R 4

$$354 \div 14 = 25 R 4$$

13. $850 \div 17 =$

14. $546 \div 25 =$

15. $700 \div 28 =$

16. $936 \div 43 =$

Name: _____

Date: _____

Divide.

Example

$$3,300 \div 30$$

$$\begin{array}{r} 110 \\ 30)3,300 \\ 30 \\ \hline 30 \\ 30 \\ \hline 0 \end{array}$$

$$3,300 \div 30 = 110$$

18. $9,607 \div 15 =$

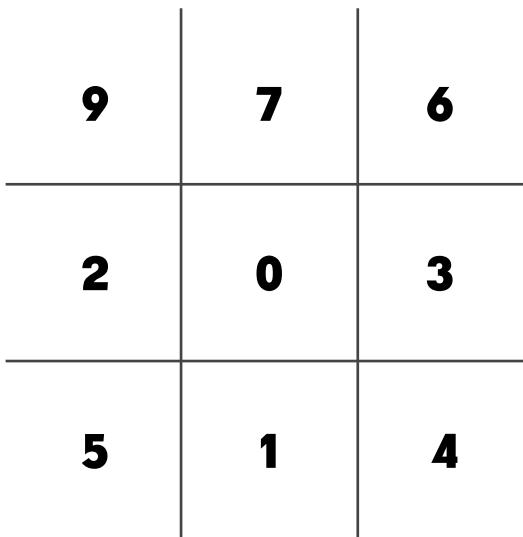
17. $7,500 \div 60 =$

19. $5,007 \div 18 =$

20. $3,215 \div 22 =$

21. $8,012 \div 46 =$

Play tic-tac-toe using the exercises below .



Choose 5 problems below and circle them. Work out the problems you chose. Find those remainders in the grid. Cross them out.
Did you win the game?

22. $27 \div 12$

23. $58 \div 19$

24. $457 \div 28$

25. $406 \div 25$

26. $518 \div 43$

27. $642 \div 58$

28. $6,900 \div 75$

29. $1,286 \div 21$

30. $2,995 \div 83$

Practice 6 Order of Operations

Simplify. Record each step.

Example

$$18 - 11 - 4 = \underline{\hspace{2cm}} \quad 3$$

Step 1 $18 - 11 = \underline{\hspace{2cm}}$

Step 2 $7 - 4 = \underline{\hspace{2cm}}$

1. $26 + 8 - 19 = \underline{\hspace{2cm}}$

Step 1 _____

Step 2 _____

2. $12 + 16 - 9 + 3 = \underline{\hspace{2cm}}$

3. $58 - 23 + 11 - 6 = \underline{\hspace{2cm}}$

Step 1 _____

Step 1 _____

Step 2 _____

Step 2 _____

Step 3 _____

Step 3 _____

Simplify. State the order in which you performed the operations.

	Numeric Expression	Order of Operations Performed		
		First	Second	Third
	$12 + 14 + 9 = \underline{\hspace{2cm}}$ 35	+	+	
4.	$60 + 18 - 7$			
5.	$70 - 15 - 49$			
6.	$23 + 16 - 7 + 12$			
7.	$15 - 12 + 17 - 6$			

Simplify. Record each step.

Example

$$9 \times 6 \div 2 = \underline{\hspace{2cm}} 27$$

Step 1 $\underline{\hspace{2cm}} 9 \times 6 = 54$

Step 2 $\underline{\hspace{2cm}} 54 \div 2 = 27$

9. $200 \div 10 \times 3 \div 5 = \underline{\hspace{2cm}}$

Step 1 $\underline{\hspace{2cm}}$

Step 2 $\underline{\hspace{2cm}}$

Step 3 $\underline{\hspace{2cm}}$

8. $25 \times 3 \div 5 = \underline{\hspace{2cm}}$

Step 1 $\underline{\hspace{2cm}}$

Step 2 $\underline{\hspace{2cm}}$

10. $250 \div 5 \div 10 \times 2 = \underline{\hspace{2cm}}$

Step 1 $\underline{\hspace{2cm}}$

Step 2 $\underline{\hspace{2cm}}$

Step 3 $\underline{\hspace{2cm}}$

Simplify. State the order in which you performed the operations.

Numeric Expression	Order of Operations Performed		
	First	Second	Third
$30 \times 2 \times 5 = 300$	x	x	
11. $6 \times 10 \div 5$			
12. $28 \div 7 \times 4$			
13. $40 \div 8 \div 5$			
14. $20 \div 10 \times 8 \div 2$			
15. $120 \div 12 \div 2 \times 16$			

Name: _____

Date: _____

Simplify. Record each step.

Example _____

$$7 \times 8 - 6 = \underline{\hspace{2cm}50}$$

Step 1 $7 \times 8 = \underline{\hspace{2cm}56}$

Step 2 $56 - 6 = \underline{\hspace{2cm}50}$

16. $14 + 9 \times 7 = \underline{\hspace{2cm}}$

Step 1 _____

Step 2 _____

17. $200 \div 20 + 5 = \underline{\hspace{2cm}}$

18. $80 - 16 \div 4 = \underline{\hspace{2cm}}$

Step 1 _____

Step 1 _____

Step 2 _____

Step 2 _____

Simplify. State the order in which you performed the operations.

	Numeric Expression	Order of Operations Performed	
		First	Second
	$25 - 5 \times 3 = 10$	×	-
19.	$90 + 16 \div 8$		
20.	$83 - 72 \div 6$		
21.	$5 + 90 \times 7$		
22.	$240 \div 20 + 15$		
23.	$7 \times 80 - 160$		

Simplify. Record each step.

Example _____

$$54 \div 6 + 20 \times 4 = \underline{\hspace{2cm}} \quad 89$$

Step 1 $\underline{54 \div 6 = 9}$

Step 2 $\underline{20 \times 4 = 80}$

Step 3 $\underline{9 + 80 = 89}$

24. $40 - 6 + 10 \times 3 = \underline{\hspace{2cm}}$

Step 1 _____

Step 2 _____

Step 3 _____

25. $36 \div 6 - 25 \div 5 = \underline{\hspace{2cm}}$

Step 1 _____

Step 2 _____

Step 3 _____

26. $25 \times 4 - 36 \div 9 = \underline{\hspace{2cm}}$

Step 1 _____

Step 2 _____

Step 3 _____

Simplify. State the order in which you performed the operations.

Numeric Expression	Order of Operations Performed			
	First	Second	Third	Fourth
$60 \div 3 + 14 \times 2 = 48$	\div	\times	$+$	
27. $20 - 5 \times 2 + 6$				
28. $13 - 6 \times 2 + 12 \div 4$				
29. $27 \div 3 + 40 \times 6$				
30. $64 - 60 + 12 \times 3$				
31. $42 \div 7 - 2 + 7$				

Simplify. Record each step.

Example _____

(15 – 11) × 9 = 36

Step 1 15 – 11 = 4

Step 2 4 × 9 = 36

32. $(11 + 5) \div 16 =$ _____

Step 1 _____

Step 2 _____

Simplify. Record each step.

33. $63 - (9 \times 7) =$ _____

Step 1 _____

Step 2 _____

34. $32 \div (14 + 2) =$ _____

Step 1 _____

Step 2 _____

Simplify. State the order in which you performed the operations.

Numeric Expression	Order of Operations Performed	
	First	Second
$3 \times (72 \div 8) = 27$	(\div)	\times
35. $(40 \div 5) \times 11$		
36. $(36 - 15) \times 2$		
37. $36 - (15 \times 2)$		
38. $(62 + 10) \div 6$		
39. $70 \div (16 - 9)$		

Name: _____

Date: _____

Simplify. Record each step.

Example _____
 $21 + (12 + 6) \div 3 = \underline{\hspace{2cm}27}$

Step 1 $\underline{12 + 6 = 18}$

Step 2 $\underline{18 \div 3 = 6}$

Step 3 $\underline{21 + 6 = 27}$

40. $7 + (8 - 4) \times 10 = \underline{\hspace{2cm}}$

Step 1 _____

Step 2 _____

Step 3 _____

41. $32 \div (7 + 1) \times 9 - 5 = \underline{\hspace{2cm}}$

Step 1 _____

Step 2 _____

Step 3 _____

Step 4 _____

Simplify. Record each step.

42. $(47 + 12) - 10 \div 5 \times 3 =$ _____

Step 1 _____

Step 2 _____

Step 3 _____

Step 4 _____

Simplify. State the order in which you performed the operations.

43.

Numeric Expression	Order of Operations Performed			
$100 + (720 + 200) \div 2$ $= 560$	(+)	÷	+	
$24 \times 5 - (125 - 80)$				
$360 \div (98 + 22) \times 19 - 30$				
$11 + (34 + 16) \div 5$				
$7 \times 6 - (18 - 6)$				
$21 \div (2 + 5) \times 12 - 8$				

44.

45.

46.

47.

Practice 7 Real-World Problems: Multiplication and Division

Solve. Show your work.

1. Rafael has 118 baseball cards arranged in an album. Each page of the album can hold 9 cards. How many pages are full and how many cards are on the last page?

2.  A ski club had 146 members. Each member paid \$30 a month for training fees. How much did the club collect in fees for the year?

Solve. Show your work.

3. A farmer collects 1,250 eggs on a morning. She puts 30 eggs on each tray. How many egg trays does she need to hold all the eggs?
4. At a supermarket, pineapple juice sells at \$1 per pint (16 ounces). Greg wants to buy eighteen 40-ounce cans of pineapple juice from the supermarket. How much does he have to pay altogether?

Solve. Show your work.

5.  A charitable organization spends \$4,500 giving out food vouchers to families.

- a. Each family receives one voucher worth \$25. How many families are there?
- b. Each voucher will be worth \$32 next year. How much more money will the charity need next year?

6. A group of tourists visits an art museum. The admission is \$13 for each adult and \$7 for each child. There are 10 adults and 18 children in the group. How much do they pay altogether?

Solve. Show your work.

7. The length of a rectangular board is 10 centimeters longer than its width. The width of the board is 26 centimeters. The board is cut into 9 equal pieces.
- a. What is the area of each piece?
- b. What are the possible dimensions of each piece?
(Take the dimensions to be whole numbers.)
8.  There are 912 yellow chairs and blue chairs altogether in an auditorium. The blue chairs are arranged in 36 rows with 12 chairs in each row. The yellow chairs are arranged in rows of 20. How many rows of yellow chairs are there?

Name: _____

Date: _____

Solve. Show your work.

9. The table shows the wages of workers in Siva's company. Siva works from Tuesday through Sunday each week. How much does he earn in 1 week?

Weekdays	\$186 per day
Saturday and Sunday	\$248 per day

Solve. Show your work.

- 10.** The table shows the charges at a parking garage.

First hour	\$8
Every additional $\frac{1}{2}$ hour	\$3

- a.** Sharona parked her car at the garage from 9:30 A.M. to 11 A.M. on the same day. How much did she have to pay?
- b.** Daryll parked his car there from 9 A.M. to 12:30 P.M. on the same day. How much did he have to pay?

Practice 8 Real-World Problems: Multiplication and Division

Solve. Use any strategy.

- 1.** Hannah and Francine have \$120. Hannah and Peter have \$230. Peter has 6 times as much money as Francine. How much money does Hannah have?

- 2.** Larry is 10 years old and his sister is 7 years old. In how many years' time will their total age be 25 years?

Solve. Use any strategy.

3. A box of chalk and 2 staplers cost \$10. Three boxes of chalk and 2 staplers cost \$18. Find the total cost of 1 box of chalk and 1 stapler.

Name: _____

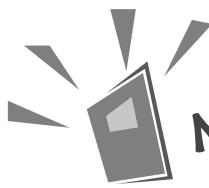
Date: _____

Solve. Use any strategy.

4. Sally and Marta had the same number of postcards. After Sally sold 18 of her postcards, Marta had 4 times as many postcards as Sally. How many postcards did each girl have to begin with?

Solve. Use any strategy.

5.  A basket with 12 apples has a mass of 3,105 grams. The same basket with 7 apples has a mass of 1,980 grams. Each apple has the same mass. What is the mass of the basket?



Math Journal

1. Kelly has a 370-page sketch book. She wants to allocate an equal number of pages for making sketches to each month of the year. She uses division to find the number of pages she can possibly allocate to each month, and the number of pages she will have left over. She works out the division like this:

$$\begin{array}{r} 30 \\ 12) 370 \\ \underline{360} \\ 10 \end{array}$$

Which part of the answer tells the number of pages that Kelly can possibly allocate to each month?

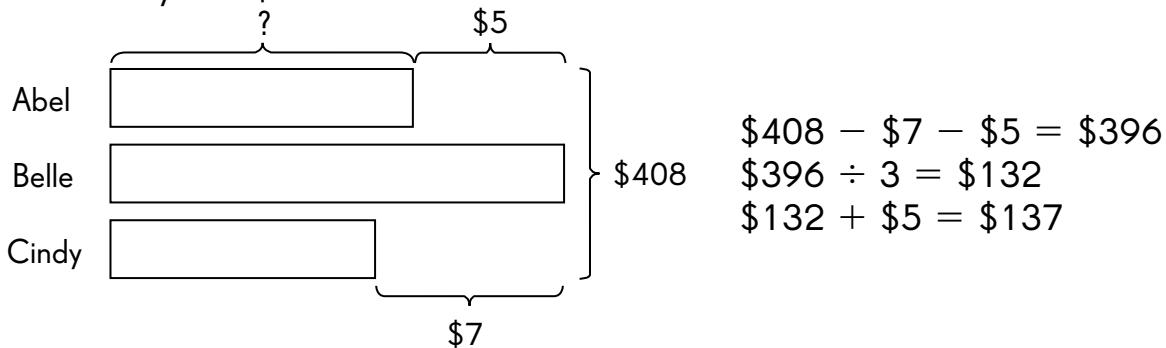
Which part tells the number of pages left over?

- 2.** Mark was asked to simplify the numeric expression $6 + 4 \times 2$.
He worked out the steps like this:

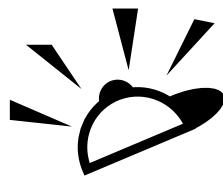
$$\begin{aligned}6 + 4 \times 2 &= 10 \times 2 \\&= 20\end{aligned}$$

Is he correct? Explain why.

- 3.** Look at the following problem and the solution given by a student:
Abel, Belle, and Cindy have \$408 altogether. Belle has \$7 more
than Cindy and \$5 more than Abel. How much does Abel have?



What was the mistake made? What should the correct answer be?



Put On Your Thinking Cap!



Challenging Practice

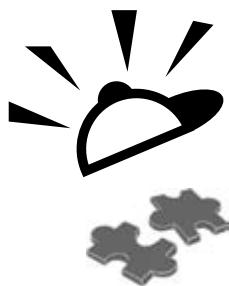
Solve. Use any strategy.

- 1.** A sticker costs 15¢, and a packet of 8 similar stickers costs \$1. Clement buys 37 stickers. What is the least amount of money that Clement spends on the stickers?

- 2.** Forty members of a parents' organization are making candles to raise money. One member drops out and the rest have to make 3 more candles each to make up. Each member makes the same number of candles. How many candles do they make altogether?

Solve. Use any strategy.

3. Mr. Thomas puts up fence posts from one end of a field to the other, equal distances apart. There are 27 posts. The width of each post is 10 centimeters. The distance between two posts is 30 meters. Find the length of the fence.
4. Kirsten has 64 coins in her piggy bank. She has \$9.25 in dimes and quarters. How many dimes and how many quarters does she have?



'Put On Your Thinking Cap!

Problem Solving

Solve. Use any strategy.

- 1.** Darcy, Jason, and Maria share \$268. Jason has \$20 more than Darcy and Maria has twice as much money as Jason. How much money do Darcy and Jason have altogether?

2. Juan and Rachel have the same number of marbles. Rachel gives away 10 marbles and Juan gives away 22 marbles. Rachel then has 3 times as many marbles as Juan. How many marbles did each of them have at first?

Solve. Use any strategy.

3. Gerry had a total of 30 pens and pencils. He decided to trade all his pens with his friends for pencils. If he traded every pen for 2 pencils, he would have 48 pencils in all. How many pens and how many pencils did he have before the trade?