Exercise TM 7A-3

7

Ratio and Money (Write the equation)

How much will they cost?

✓1. 2 for 49¢
Buy 7.

✓2. 5 for 79¢
Buy 9.

✓3. 6 for $.95
Buy 3.

4. 2 for 25¢
Buy 6.

How many will you get?

✓5. 3 for $.65
Spend $2.60.

✓6. 5 for $1.00
Spend $3.20.

✓7. 6 for $1.44
Spend 96¢.

8. 2 for 15¢
Spend 45¢

How much will they cost?

9. 2 for 15¢
Buy 8.

10. 3 for 67¢
Buy 9.

11. 6 for 25¢
Buy 12.

12. 8 for 89¢
Buy 16.

13. 3 for 35¢
Buy 15.

14. 5 for 65¢
Buy 10.

15. 10 for 99¢
Buy 30.

16. 9 for 50¢
Buy 27.

17. 12 for $1.00
Buy 30.

18. 8 for 25¢
Buy 32.

19. 3 for 79¢
Buy 12.

20. 7 for 75¢
Buy 21.

How many will you get?

21. 2 for 32¢
Spend $1.60

22. 8 for 19¢
Spend $1.71.

23. 5 for 49¢
Spend 98¢.

24. 7 for $6.00
Spend $18.00

25. 6 for 29¢
Spend $2.03.

26. 7 for 75¢
Spend $1.50.

27. 10 for $1.25
Spend $3.75.

28. 4 for $1.25
Spend $6.25.

29. Tomato juice sells at the rate of 3 cans for $1.35. Na than buys 7 cans. How much does he spend?

30. Jars of spaghetti sauce sell at the rate of 3 for $6.57. How much does Diana spend for 5 jars?

31. Suzanne spends $2.58 on potatoes. The potatoes are selling at the rate of 4 pounds for $.86. How many pounds did Suzanne buy?

32. You spend $156.00 for groceries for a 2.5-week period. At this rate, how much would you expect to spend on groceries for the year?

1.	2.
3.	4.

5.	6.
7.	8.

9.	10.
11.	12.
13.	14.
15.	16.
17.	18.
19.	20.

21.	22.
23.	24.
25.	26.
27.	28.
29.	30.
31.	32.

Exercise 8A - 11

Percent of Increase and Percent of Decrease

Find the percent of increase or decrease.

✓1. Original price: $80
New price: $96

✓2. Original price: $42.00
New price: $44.10

3. January sales: 50
February sales: 57

4. Original price: $6,500
New price: $6,370

✓5. Original price: $19.00
New price: $14.25

✓6. March sales: 40
April sales: 36

7. Original price: $25.00
New price: $25.75

8. Original price: $38.00
New price: $45.60

9. Sale last year: 575
Sale this year: 690

10. Original price: $96.00
New price: $76.80

11. Original price: $25.50
New price: $23.97

12. May sales: 48
June sales: 36

1.	2.
3.	4.
5.	6.
7.	8.
9.	10.
11.	12.

Problem Solving

13. Last year a deluxe ten-speed bicycle cost $129.50. This year the price is $142.45. By what percent did the price increase in one year?

14. It costs a jeweler $85.00 to make a ring. The jeweler sells the ring for $153.00. This is a markup of what percent?

15. Last week a portable typewriter cost $124.95. This week it is on sale for $99.96. This is a decrease in price of what percent?

16. In March, 15 desk lamps were sold. In April, 21 desk lamps were sold. What percent increase in sales is this?

17. Last year a store sold 216 radios. This year the store sold only 189 radios. This is a decrease in sales of what percent?

18. The list price of a pocket camera is $45. The Camera Shed offers it for $36. This is a discount of what percent?

19. A department store sells a fan for $80.00. Discount Mart sells the same fan for $68.00. Shop Smart sells it for $65.60. How much greater is the discount rate at Shop Smart than at Discount Mart?

20. Raoul wants a tape recorder. Model A costs $75.00 and is now on sale for $60.00. Model B costs $72.50 and is now on sale for $59.45. Which model has the greater discount?

13.
14.
15.
16.
17.
18.
19.
20.

Multiplying Integers

✓ 1. $+7 \cdot +5$ ✓ 2. $+12 \cdot +3$ ✓ 3. $+8 \cdot -5$

✓ 4. $+7 \cdot -10$ ✓ 5. $-9 \cdot +4$ ✓ 6. $-6 \cdot +11$

✓ 7. $-5 \cdot -12$ ✓ 8. $-13 \cdot -6$ ✓ 9. $+7 \cdot -7$

✓ 10. $10 \cdot 0$ 11. $-9 \cdot +9$ 12. $0 \cdot -8$

13. $-6 \cdot -3$ 14. $-8 \cdot +2$ 15. $+2 \cdot +1$

16. $-3 \cdot -2$ 17. $+9 \cdot -1$ 18. $-8 \cdot +1$

19. $+6 \cdot -7$ 20. $+5 \cdot -1000$ 21. $+15 \cdot +3$

22. $-11 \cdot 0$ 23. $-8 \cdot +1$ 24. $-8 \cdot -1$

25. $-13 \cdot -2$ 26. $+12 \cdot +3$ 27. $-7 \cdot -11$

28. $-11 \cdot +6$ 29. $+12 \cdot -4$ 30. $-9 \cdot -8$

31. $+5 \cdot -100$ 32. $-21 \cdot -2$ 33. $-11 \cdot -8$

34. $-5 \cdot +10$ 35. $-9 \cdot +10$ 36. $-5 \cdot -8$

37. $-3 \cdot -2 \cdot +4$ 38. $-2 \cdot +6 \cdot -1$ 39. $+5 \cdot -6 \cdot -2$

40. $-4 \cdot +8 \cdot -1$ 41. $-3 \cdot -5 \cdot -2$ 42. $-6 \cdot -4 \cdot -5$

43. $(-3 \cdot -2) + +6$ 44. $+6(-3 - -5)$ 45. $-4 + (-2 \cdot +5)$

Solve for n

46. $-9 \cdot n = +27$ 47. $+12 \cdot n = +24$ 48. $-6 \cdot n = +6$

49. $-8 \cdot n = -24$ 50. $+2 \cdot n = -14$ 51. $-3 \cdot n = +12$

52. $+5 \cdot n = -15$ 53. $-4 \cdot n = +24$ 54. $-6 \cdot n = -18$

55. $-7 \cdot n = +28$ 56. $+8 \cdot n = -32$ 57. $-2 \cdot n = +6$

58. $+9 \cdot n = -54$ 59. $-3 \cdot n = +24$ 60. $-6 \cdot n = +36$

61. $-4 \cdot n = +36$ 62. $+2 \cdot n = +24$ 63. $+4 \cdot n = -28$

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.
13.	14.	15.
16.	17.	18.
19.	20.	21.
22.	23.	24.
25.	26.	27.
28.	29.	30.
31.	32.	33.
34.	35.	36.
37.	38.	39.
40.	41.	42.
43.	44.	45.
46.	47.	48.
49.	50.	51.
52.	53.	54.
55.	56.	57.
58.	59.	60.
61.	62.	63.

1) Andrews bought a ring for $10 off the usual $40 price.

   a) What percent discount did she get?

   b) What percent of the usual price did she pay?

   c) How much was the discount (in money)?

   d) How much did she pay (in money)?

2) Edwards bought a $500 TV set on sale at a 15% discount.

   a) How much was the discount?

   b) How much did she pay for the TV set?

   c) What percent of the usual price was the sale price?

3) Andrews bought a $40 ring at a 30% discount.

   a) How much was the discount?

   b) How much did Andrews pay for the ring?

   c) What percent of the regular price did Andrews pay?

4) Marge took a test with 40 problems on it. She got 36 right.

   a) What was Marge's score on the test?

   b) What percent of the number of problems on the test did Marge get right?

   c) How many problems did Marge get wrong?

   d) What percent of the number of problems on the test did Marge get wrong?

5) Andrews bought a ring for $10 off the usual price. She paid $30 for it.

   a) What was the usual price of the ring?

   b) What percent off the regular price did Andrews get?

   c) What percent of the usual price did Andrews pay?

   d) What percent of the regular price was the discounted price?

6) Marge's score on a test was 85%. She had 34 problems right.

   a) How many problems were on the test?

   b) What percent of the problems on the test did Marge get wrong?

   c) How many problems did Marge get wrong?

7) Marge's score on a test was 84%. The test had 25 problems on it.

   a) What percent of the problems did Marge get wrong?

   b) How many problems did Marge get right?

   c) How many problems did Marge get wrong?

8) Tony bought a $20 toy at a 20% discount. He need to pay 5% Tax.

   a) How much was the discount?

   b) How much did Tony pay Tax?

   c) How much he pay for the toy after tax?

1a	5a
1b	5b
1c	5c
1d	5d
2a	6a
2b	6b
2c	6c
3a	7a
3b	7b
3c	7c
4a	8a
4b	8b
4c	8c
4d	

Exercise CM 64A – 1

7

1. Use the number sentence 63 x 501 = 31,563 to help you solve the following:
 	
   a. 6.3 x 5.01   b. 6.3 x 0.501   c. 6.3 x 50.1
 	
   d. 0.63 x 5.01   e. 0.63 x 501   f. 0.63 x 0.501
	a.
	
	c.
	
	e.
		b.
		
		d.
		
		f.

2. For each of the following problems, find the product.
 	
   a. 2.4 x 0.8   b. 5.21 x 1.1   c. 1.29 x 8
 	
   d. $12.2 \times \frac{1}{2}$ e. 74.6 x 1.5   f. 3.04 x 100
	a.
	
	c.
	
	e.
		b.
		
		d.
		
		f.

3. Use the number sentence 936 ÷ 12 = 78 to help you solve the following:
 	
   a. 936 ÷ 1.2   b. 93.6 ÷ 12   c. 9.36 ÷ 12
 	
   d. 0.936 ÷ 12   e. 936 ÷ 0.12   f. 936 ÷ 0.012
	a.
	
	c.
	
	e.
		b.
		
		d.
		
		f.

4. Use the number sentence 492 ÷ 4 = 123 to help you solve the following:
 	
   a. 492 ÷ 40   b. 492 ÷ 400   c. 492 ÷ 4000
 	
   d. 49.2 ÷ 4   e. 4.92 ÷ 4   f. 0.492 ÷ 4
	a.
	
	c.
	
	e.
		b.
		
		d.
		
		f.

5. Find each quotient.
 	
   a. 4.5 ÷ 0.3   b. 64.4 ÷ 0.04   c. 12.9 ÷ 20
 	
   d. 12.9 ÷ 0.2   e. 1.05 ÷ 2.1   f. 18.8 ÷ 4
	a.
	
	c.
	
	e.
		b.
		
		d.
		
		f.

6. Jason and his mother are re-tiling the kitchen floor. The area of the kitchen floor is 96.75 square feet. Each tile has an area of 1.25 square feet. How many tiles will Jason and his mother need to tile the kitchen?	6.	7.
7. The student concession stand buys 6.5 pounds of unpopped popcorn for $12.75. What is the price per pound of the popcorn?		
8. A pen costs $0.59. How much a dozen would pens cost?	8.	9.
9. A mint costs $0.02. How much a roll of 10 would mints cost?		
10. A bottle of juice has a deposit of $0.10 on the bottle. How much deposit money would there be on 8 bottles?	10.	11.
11. An orange costs $0.09. How much would 2 dozen oranges cost?		

12. For each of the following, decide if the quotient is less than 1 or greater than 1. a. 9.22 ÷ 2.8 b. 0.9 ÷ 0.3 c. 12.6 ÷ 11.8 d. 5.6 ÷ 9.9	a. c.	b. d.

Solving the equation

1. $\frac{3}{4} x = 15$

2. $0.2\, x = 6$

3. $\frac{x}{0.4} = 1.7$

4. $\frac{x}{1.3} = 2.4$

5. $\frac{1}{8} x = 7$

6. $\frac{17}{12} x = 34$

7. $\frac{8}{3} x = 24$

8. $\frac{1}{9} x = 14$

9. $\frac{x}{1.8} = 2.9$

10. $\frac{x}{2.3} = 5$

11. $0.35\, x = 10.5$

12. $0.55\, x = 2.20$

13. $0.28\, x = 2.24$

14. $0.67\, x = 6.03$

15. $\frac{x}{2.6} = 3.7$

16. $\frac{x}{5.9} = 14.2$

17. $1.3\, x = 39$

18. $3.2\, x = 128$

19. $\frac{x}{4.5} = 11$

20. $\frac{x}{6.2} = 17$

21. $r + 30 = 80$

22. $31 + d = 47$

23. $\frac{2}{3} x = 16$

24. $x - 21 = 19$

25. $79 - a = 17$

26. $14 + 12 = 17 + a$

27. $1.23 = 1.50 - a$

28. $\frac{7}{8} + a = 4$

29. $a - \frac{2}{5} = 12$

30. $0.5 + 1.7 = 5 - a$

31. $13\, t = 52$

32. $84 = 14\, k$

33. $\frac{n}{6} = 12$

34. $15 = \frac{x}{3}$

35. $28 = 7\, v$

36. $3 = \frac{p}{3}$

37. $105 = 15\, x$

38. $48\, c = 16$

39. $\frac{t}{7} = 5\,(3 + 4)$

40. $9 = \frac{x}{10}$

41. $3\,(27) = 9\, v$

42. $(10)(5) = \frac{w}{4}$

43. $\frac{1}{7} = \frac{3}{7} k$

44. $\frac{12}{5} c = \frac{3}{10}$

45. $0.25\, a = 1.0$

46. $1.7 = 1.7\, x$

47. $\frac{5}{9} = \frac{12}{5} k$

48. $1.25 = 0.6\, f$

49. $6.25\, t = 1.25$

50. $\frac{11}{15} = \frac{3}{5} y$

51. $\frac{3}{8} c = \frac{9}{16}$

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.
13.	14.	15.
16.	17.	18.
19.	20.	21.
22.	23.	24.
25.	26.	27.
28.	29.	30.
31.	32.	33.
34.	35.	36.
37.	38.	39.
40.	41.	42.
43.	44.	45.
46.	47.	48.
49.	50.	51.