

MATHEMATICS DEPARTMENT
Houston Community College
MATH 0306 FINAL REVIEW PROBLEMS

Revised 10-22-07

These exercises represent a compilation of typical problems in this course. This is NOT a sample of the final exam. However, doing these problems will help you to prepare for the final exam. The instructions for the problems are followed by bracketed references to appropriate sections in the book.

Write expanded notation. [1.1]

1) 46,732

Write standard notation. [1.1]

2) Fifty thousand, three hundred forty

Write the number in words. [1.1]

3) 9,300,695

Add. [1.2]

4) $9470 + 680 + 7 + 37$

Subtract. [1.3]

5) $7758 - 3479$

Round as indicated. [1.4]

6) 1547 to the nearest hundred

7) 177,541 to the nearest thousand

Multiply. [1.5]

8) $(255)(91)$

Divide. [1.6]

9) $5252 \div 145$

Solve the problem. [1.3, 1.5, 1.6, 1.8]

10) A survey of 1632 people found that 782 people were planning to travel on Labor Day weekend. How many people were planning to stay home?

11) Steve's company has to ship 120 engines. If a truck can hold 15 engines, how many truckloads are needed to ship all of the engines?

12) How many months are there in 33 years?

Simplify. [1.9, 2.2, 2.3]

13) $9 \cdot 2 + 7(7 - 3^2) + 1$

14) $8 \cdot 5 + 2[18 \div [8 - (3 + 2)]]$

15) $-9 + 13 - 16 - (-17)$

Multiply. [2.4]

16) $2 \cdot (-4) \cdot 11 \cdot (-8)$

17) $5(-5)(11)(0)$

Divide, if possible. [2.5]

18) $-135 \div (-9)$

19) $\frac{0}{-3}$

20) $\frac{-71}{0}$

Evaluate the algebraic expression. [2.6]

21) $-2x + y^2$ when $x = 4$ and $y = -3$

Multiply. [2.6]

22) $9(x - 5 + 5y)$

Combine like terms. [2.7]

23) $7x^2 + 25x - 5y + 9 - 6x^2 - 23x - 4 - 3y$

Solve the equation using the addition principle. [2.8]

24) $z + 2 = -5$

Solve the equation using the multiplication principle. [2.8]

25) $-5x = -45$

Solve the equation. [2.8]

26) $2p + 3 = 23$

Determine whether the number is divisible by 2, 3, 5, 6, 9, and / or 10. [3.1]

27) 6141

Find the prime factorization of the number. [3.2]

28) 198

Find an equivalent expression, using the denominator indicated. [3.5]

29) $\frac{5}{8} = \frac{?}{32}$

Simplify. [3.5]

30) $\frac{-105}{175}$

Multiply and simplify. [3.4, 3.6]

31) $\left(-\frac{14}{5}\right)\left(-\frac{15}{28}\right)$

Solve the problem. [3.6]

32) There are 65 students in Jose's class. $\frac{4}{5}$ of the students are science majors. How many students are science majors?

Divide and simplify, if possible. [3.7]

33) $\left(\frac{9}{5}\right) \div \left(-\frac{1}{5}\right)$

Solve. [3.8]

34) $-\frac{1}{4}x = 14$

35) $\frac{3}{5}x = \frac{7}{15}$

Find the least common multiple of the set of numbers. [4.1]

36) 12, 20

Add and simplify, if possible. [4.2]

37) $\frac{1}{20} + \frac{1}{15}$

Replace the $\&$ with $>$ or $<$ in order to write a true sentence. [4.2]

38) $\frac{1}{3} \& \frac{2}{7}$

Subtract and simplify, if possible. [4.3]

39) $\frac{11}{21} - \frac{3}{35}$

Convert to a mixed numeral. [4.5]

$$40) \frac{258}{4}$$

Add. Write a mixed numeral for the answer. [4.6]

$$41) \begin{array}{r} 12\frac{5}{9} \\ + 16\frac{1}{4} \\ \hline \end{array}$$

Subtract. Write a mixed numeral for the answer. [4.6]

$$42) \begin{array}{r} 13 \\ - 6\frac{4}{7} \\ \hline \end{array}$$

$$43) \begin{array}{r} 14\frac{1}{8} \\ - 3\frac{3}{4} \\ \hline \end{array}$$

Multiply. Write a mixed numeral for the answer. [4.5, 4.7]

$$44) 2\frac{1}{6} \cdot \frac{3}{7}$$

Divide. Write a mixed numeral for the answer. [4.5, 4.7]

$$45) 4\frac{1}{5} \div \left(-3\frac{3}{8}\right)$$

Solve the problem. [4.6, 4.7]

46) A rectangular lot has dimensions of $76\frac{1}{2}$ ft by 200 ft. Find the perimeter and the area of the lot.

Solve the problem. Write a mixed numeral for the answer. [4.7]

47) A car traveled 285 miles on $13\frac{4}{7}$ gallons of gas. How many miles per gallon did it get?

Write in words, as on a check. [5.1]

48) \$1690.15

Write the fraction in decimal notation. [5.1]

$$49) -\frac{63}{10}$$

Estimate by rounding as directed. [5.1]

50) $21.325 + 0.582 + 79.99$; nearest tenth

Arrange in order from smallest to largest. [5.1]

51) 4.05, 4.5, 4.055

Which number is larger? [5.1]

52) -27.07, -27.2

Add. [5.2]

53) $179.4 + 0.81 + 21.65 + 95 + 4.7$

Subtract. [5.2]

54) $13.05 - 9.912$

Multiply. [5.3]

55)
$$\begin{array}{r} 0.0041 \\ \times \quad 7.2 \\ \hline \end{array}$$

Divide. [5.4]

56) $4.8 \div (-16)$

57) $8.55 \div 0.09$

Solve the equation. [5.7]

58) $6x + 0.02 = 0.62$

Find the exact answer. [5.8]

59) BT&T charges \$0.34 for the first minute and \$0.22 for each additional minute for a long-distance call. How much will a 30 minute long-distance call cost?

Find the indicated rate. [6.1]

60) A machine can fill 4338 boxes of cereal in 0.6 hour. How many boxes of cereal can it fill per hour?

Solve the proportion. [6.1]

61) $\frac{2.4}{4} = \frac{x}{9}$

Write the decimal as a percent. Then write the decimal as a fraction and simplify, if possible. [6.2, 5.1, 3.5]

62) 0.224

Find fraction notation and simplify. Then write the percent as an equivalent decimal. [6.2, 6.3]

63) 52%

Write the fraction as an equivalent percent. [6.3]

64) $\frac{4}{9}$

Solve the problem. Round to the nearest unit. [6.4, 6.5]

65) 65 is 40% of what?

Solve the problem. [6.6]

66) Last year, Maria earned \$367 per week. This year, her salary increased to \$392 per week. What is the percent of increase?

67) By switching service providers, a family's telephone bill decreased from about \$50 a month to about \$45. What was the percent of decrease?

Solve the problem. [6.7]

68) A camera costs \$320. If the sales tax rate is 6%, how much tax is charged and what is the total price? Round your answers to the nearest cent.

69) A kitchen table costs \$550. The sales tax is \$27.50. What is the sales tax rate?

70) What is the commission from the sale of \$720 worth of books, if the commission rate is 7%?

Solve the problem. Round your answer to the nearest cent. [6.7]

71) The regular price of a blanket is \$24.00. During a November sale, the blanket was selling for 35% off the regular price. What was the sale price of the blanket?

Find the simple interest. Round your answer to the nearest cent. [6.7]

72) Principal = \$2260
Rate = 10%
Time in months = 18

Solve the problem. Round your answer to the nearest cent. [6.7]

73) Brad invests \$2000 in an account paying 8% compounded annually. How much is in the account after 2 years?

Find the mean. [7.1]

74) 69, 75, 59, 71, 56

Find any modes that exist. [7.1]

75) 20, 27, 46, 27, 49, 27, 49

Find the median. [7.1]

76) 9, 9, 11, 22, 36, 44, 50

77) 6, 21, 11, 9, 25, 26

Use the pictograph to solve the problem. [7.2]

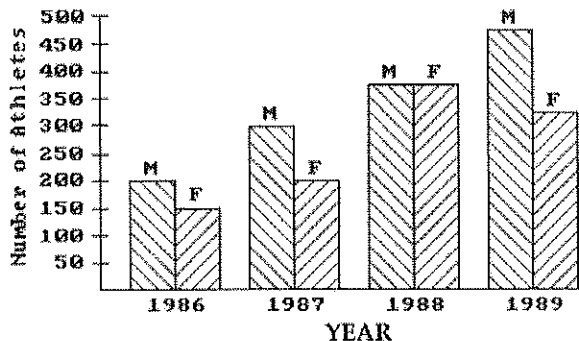
78) The following pictograph shows sales of compact disks (CDs) for a popular rock band for seven consecutive years.

Year	CD Sales
2002	7 7
2001	7 7 7 7 7 7
2000	7 7 7 7 7 7 7 7 7 7
1999	7 7 7 7 7 7 7 7 7 7
1998	7 7 7 7 7
1997	7 7 7 7 7 7 7
1996	7 7 7

7 = 10,000 CDs

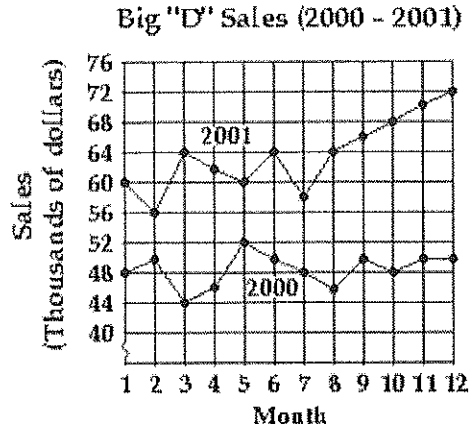
How many more CDs were sold in year 2000 than in year 1998?

The following double bar graph shows the number of male (M) and female (F) athletes at a university in various years. Use the bar graph to solve the problem. [7.3]



79) Which year had the smallest number of male athletes?

The following graph shows the monthly sales for Big "D" Sales during 2000 and 2001. Use the graph to solve the problem. [7.3]



80) Between which 2 months in 2000 was there the greatest increase in sales?

Detailed Solutions to
Math 0306 Final Review Problems

1, Write in Expanded form:
46,732

Solution -

4 ten thousands + 6 thousands + 7 hundreds +
3 tens + 2 ones

2, Write in Standard Notation:

Fifty thousand, three hundred forty

Solution -

50,340

3, Write the number in words

9,300,695

Solution -

Nine million three hundred thousand, six hundred
and ninety five.

4, $9470 + 680 + 7 + 37 =$

Solution -

fairly easy = 10194

5, Subtract: $7758 - 3479$

Solution -

4279

Round

6, 1547 to the nearest hundred.
- Solution -

1 5 4 7
↑ ↑ ↑
100's tens ones

since 4 is smaller than
5
the answer is 1500.

7, 177541 is rounded to the
nearest thousand is:
- Solution -

1 7 7 5 4 1
1000's 100's 10's ones

since the number
on the right side
of the 7 is
5, you round
up

178,000 ✓

8, multiply: (255)(91)

- Solution -
Answer is 23,205 ✓

9, Divide: $5252 \div 145$

Solution

$$\begin{array}{r} 36 \\ 145 \overline{) 5252} \\ \underline{-435} \\ 902 \\ \underline{-870} \\ 32 \end{array}$$

= 36 remainder 32

10, $1632 - 782 = 850$ people.

11, $15 \overline{) 120} = 8$ truck loads

12, How many months are there in 33 years?

Solution

1 year = 12 months

33 years = $33 \times 12 = 396$ months

13, Simplify: $9 \cdot 2 + 7(7 - 3^2) + 1$

- Solution -

Use order of operations.

P E M D A S
↑ ↑ × ÷ + -
Parenthesis Exponents

$$18 + 7(7 - 9) + 1$$

$$= 18 + 7(-2) + 1$$

$$= 18 - 14 + 1 = 4 + 1 = 5 \checkmark$$

14, Simplify: $8 \cdot 5 + 2 \{ 18 \div [8 - (3 + 2)] \}$

- Solution -

$$= 40 + 2 \{ 18 \div [8 - 5] \}$$

$$= 40 + 2 \{ 18 \div 3 \} = 40 + 2 \{ 6 \}$$

$$= 40 + 12 = 52$$

15, Multiply: $2 \cdot (-4) \cdot 11 \cdot (-8)$

- Solution -
multiply the signs first:
 $- \times - = +$

Now, multiply the number

$$2 \times 4 \times 11 \times 8 = 8 \times 11 \times 8 \\ = 88 \times 8 = 704 \checkmark$$

17, Multiply: $5(-5)(11)(0)$

- Solution -
Any # that is multiplied by 0
is zero.

Answer is 0.

18, Divide: $-135 \div -9$

- Solution -
Divide the signs first: $(-) \div (-) = +$

Now divide 135 by 9 = 15 \checkmark

19, Divide: $\frac{0}{-3}$

- Solution -

$$\frac{0}{\text{any } \neq} = 0 \checkmark$$

20, Divide: $\frac{-71}{0}$

- Solution -

Any number divided by 0 is undefined.

21, Evaluate: $-2x + y^2$ when $x=4$ and $y=-3$

- Solution -

Replace x with 4 and y with -3 in parenthesis:

$$\begin{aligned} & -2(4) + (-3)^2 \\ & = -8 + 9 = 1 \checkmark \end{aligned}$$

22, Multiply: $9(x - 5 + 5y)$

- Solution -

Multiply 9 by each term inside the parenthesis:

$$9x - 45 + 45y \checkmark$$

23, Combine like Terms:

$$7x^2 + 25x - 5y + 9 - 6x^2 - 23x - 4 - 3y$$

- Solution -

place the terms that belong to the same family next to each other:

$$7x^2 - 6x^2 + 25x - 23x - 5y - 3y + 9 - 4$$

$$= x^2 + 2x - 8y + 5 \checkmark$$

24, Solve the equation:

$$z + 2 = -5$$

- Solution -

$$z + 2 = -5$$

$$\begin{array}{r} -2 \\ -2 \end{array}$$



$$z = -7 \checkmark$$

25, Solve: $-5x = -45$

- Solution -

$$-5x = -45 \quad \text{Divide both sides by } -5.$$

$$\frac{-5x}{-5} = \frac{-45}{-5}$$

$$x = 9 \checkmark$$

26, Solve. $2P + 3 = 23$

- Solution -

$$\begin{array}{r} 2P + 3 = 23 \\ -3 \quad -3 \\ \hline \end{array}$$

$$2P = 20 \quad \text{Divide by 2}$$
$$P = 10 \checkmark$$

27, Determine whether the number is divisible by 2, 3, 5, 6, 9 / or 10.

Number is 6141

- Solution -

6141 is not divisible by 2 because it is odd.

6141 is divisible by 3 if when you add the digits, the result is divisible by 3.
 $6 + 1 + 4 + 1 = 12$. Since 12 is divisible by 3, 6141 is divisible by 3.

6141 is not divisible by 6 since it is not divisible by both 2 and 3.

6141 is not divisible by 9 since

the sum of its digits are not divisible by 9.

6141 is not divisible by 5 because it does not end with 0 or 5.

6141 is not divisible by 10 because it does not end with 0.

ANSWER IS 3 ✓

28, find the prime factorization of 198.
Solution -

Since 198 is even, it is divisible by 2

$$2 \times 99$$

Now 99 is divisible by 3.

$$2 \times 3 \times 33$$

33 is divisible by 3

$$2 \times 3 \times 3 \times 11 \quad \checkmark$$

29, Find an equivalent expression, using the denominator indicated:

$$\frac{5}{8} = \frac{?}{32}$$

- Solution -

$$8 \times ? = 32, \text{ the answer is 4.}$$

Multiply $\frac{5}{8}$ by $\frac{4}{4} = \frac{20}{32}$. Answer is 20 ✓

30, Multiply and simplify. $\left(\frac{-14}{5}\right) \left(\frac{-15}{28}\right)$

- Solution -

x the signs first: $- \times - = +$ ✓

$$\frac{\cancel{14}^1}{\cancel{5}^1} \times \frac{\cancel{15}^3}{\cancel{28}^2} = \frac{3}{2} \checkmark$$

30, Simplify: $\frac{-105}{175}$

- Solution -

Divide the signs first: $(-) \div (+) = -$

Since both numerator & denominator end with 5, divide both of them by 5

$$= \frac{-21}{35}. \text{ Now divide by 7} = \frac{-3}{5} \checkmark$$

32,

- Solution -

$$\frac{4}{5} \times 65 = \frac{4}{5} \times \frac{65}{1} = \frac{260}{5} = 52 \checkmark$$

33,

Divide and simplify if possible:

$$\left(\frac{9}{5}\right) \div \left(-\frac{1}{5}\right)$$

- Solution -

Divide the signs first: $(+) \div (-) = -$

$$\frac{\frac{9}{5}}{\frac{1}{5}} = \frac{9 \times 5}{1 \times 5} = \frac{45}{5} = 9$$

Answer is $-9 \checkmark$

34,

Solve. $-\frac{1}{4}x = 14$

- Solution -

$$-\frac{1}{4}x = \frac{14}{1}$$

Cross multiply.

$$-x = 56$$

divide by -1 .

$$x = -56 \checkmark$$

35, Solve: $\frac{3}{5}X = \frac{1}{15}$

- Solution -

Cross multiply. $45X = 35$

$$X = \frac{35}{45}$$

divide by 45.
Reduce by dividing by 5.

$$X = \frac{7}{9} \checkmark$$

36, find the least common multiple of 12 and 20.

- Solution -

Write 20 as 4×5 .

Write 12 as 4×3

Since 4 is common, write it once.

$$4 \times 3 \times 5 = 60 \checkmark$$

37, Add and simplify:

$$\frac{1}{20} + \frac{1}{15}$$

- Solution -

L.C.D is :

$$20 = 5 \times 4$$

$$15 = 5 \times 3$$

$$\text{L.C.D} = 5 \times 4 \times 3 = 60 \checkmark$$

Now rewrite $\frac{1}{20}$ as $\frac{3}{3} \times \frac{1}{20} = \frac{3}{60}$.

And write $\frac{1}{15}$ as $\frac{4}{4} \times \frac{1}{15} = \frac{4}{60}$.

$$\frac{3}{60} + \frac{4}{60} = \frac{7}{60} \checkmark$$

38,

Replace $>$ or $<$

$$\frac{1}{3} \quad \frac{2}{7}$$

- Solution -

$$\frac{1}{3}$$

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

cross multiply.

$$1 \times 7$$

$$2 \times 3$$

$$7$$

$$6$$

since $7 > 6$

$\frac{1}{3}$ is larger than $\frac{2}{7}$

$$\frac{1}{3} > \frac{2}{7} \checkmark$$

39,

Subtract and simplify:

$$\frac{11}{21} - \frac{3}{35}$$

- Solution -

Find the L.C.D of 21 and 35.

$$21 = 7 \times 3$$

$$35 = 7 \times 5$$

$$\Rightarrow \text{L.C.D} = 7 \times 3 \times 5 = 105 \checkmark$$

Rewrite $\frac{5}{5} \times \frac{11}{21} = \frac{55}{105}$.

Rewrite $\frac{3}{3} \times \frac{3}{35} = \frac{9}{105}$.

$$\frac{55}{105} - \frac{9}{105} = \frac{46}{105} \checkmark$$

40, Convert $\frac{258}{4}$ to a mixed numeral.

- Solution -

Divide 258 by 4

$$= 64 \frac{2}{4} = 64 \frac{1}{2} \checkmark$$

$$\begin{array}{r} 64 \\ 4 \overline{) 258} \\ \underline{-256} \\ 2 \end{array}$$

41, Add: $12 \frac{5}{9} + 16 \frac{1}{4}$

- Solution -

Add the whole #'s first.

$$12 + 16 = 28$$

Now add $\frac{5}{9} + \frac{1}{4}$.

Multiply the denominator
 $9 \times 4 = 36$.

or cross multiply
from left to
right.

$$\frac{5 \times 4 + 1 \times 9}{36} = \frac{29}{36} \checkmark$$

Answer is $28 \frac{29}{36} \checkmark$

42, Subtract $13 - 6\frac{4}{7}$.

- Solution -

Write 13 & $6\frac{4}{7}$ as improper fractions.

$$13 = \frac{13}{1}$$

$$6\frac{4}{7} = \frac{6 \times 7 + 4}{7} = \frac{46}{7}$$

Now Subtract: $\frac{13}{1} - \frac{46}{7}$

Multiply the denominators & cross multiply from left to right.

$$\frac{13 \times 7 - 1 \times 46}{7} = \frac{91 - 46}{7} = \frac{45}{7}$$

Divide 45 by 7 = $6\frac{3}{7}$ ✓

43, Subtract: $14\frac{1}{8} - 3\frac{3}{4}$

Solution -

$$14\frac{1}{8} = \frac{14 \times 8 + 1}{8} = \frac{113}{8}$$

$$3\frac{3}{4} = \frac{3 \times 4 + 3}{4} = \frac{15}{4}$$

$$\frac{113}{8} - \frac{15}{4} = \frac{113}{8} - \frac{30}{8} = \frac{83}{8} = 10\frac{3}{8} \checkmark$$

44, Multiply: $2\frac{1}{6} \cdot \frac{3}{7}$

- Solution -

Rewrite $2\frac{1}{6}$ as improper: $\frac{2 \times 6 + 1}{6} = \frac{13}{6}$.

$\frac{13}{6} \cdot \frac{3}{7} = \frac{39}{42} \Rightarrow$ divide both sides by 3

$\frac{13}{14} \checkmark$

45, Divide: $4\frac{1}{5} \div \left[-3\frac{3}{8}\right]$

Solution -

Divide the signs first: $(+) \div (-) = -$.

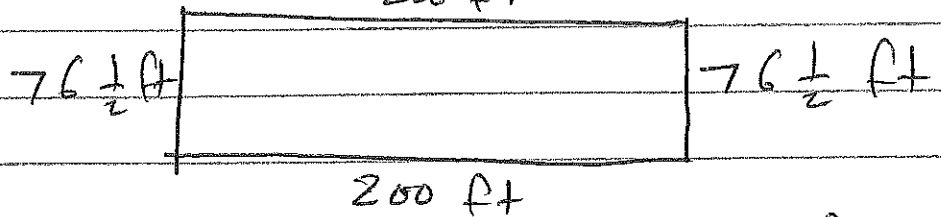
Rewrite as improper fractions:

$4\frac{1}{5} = \frac{21}{5}$; $3\frac{3}{8} = \frac{27}{8}$

$\frac{\frac{21}{5}}{\frac{27}{8}} = \frac{7 \cancel{21} \times 8}{5 \times \cancel{27} 9} = \frac{56}{45}$
 $= -1\frac{11}{45} \checkmark$

46,

- Solution -
200 ft



Perimeter = distance around the figure.

$$200 + 200 + 76\frac{1}{2} + 76\frac{1}{2}$$

$$= 400 + 153 = 553 \text{ ft} \checkmark$$

47,

miles per gallon \rightarrow divide miles by gallons

$$285 \div 13\frac{4}{7}$$

$$285 = \frac{285}{1}$$

$$13\frac{4}{7} = \frac{13 \times 7 + 4}{7} = \frac{95}{7}$$

$$\frac{\frac{285}{1}}{\frac{95}{7}} = \frac{285 \times 7}{1 \times 95} = \frac{1995}{95} = 21 \text{ mpg}$$

48, Write in words. 1690.15

- Solution -

one thousand six hundred ninety and $\frac{15}{100}$ dollars

49, Write in decimal. $-\frac{63}{10}$

- Solution -

Whenever you divide by 10, move the decimal 1 place to the left = -6.3 ✓

50, Estimate by rounding to the nearest 10th.

$$21.325 + 0.582 + 79.99 = 101.9$$

51, Arrange in order from smallest to largest:

4.05, 4.5, 4.055

- Solution -

4.05, 4.055, 4.5 ✓

52, Which number is larger?

-27.07, -27.2

- Solution -

For negative numbers, the smaller one is the larger one.

-27.07 ✓

53, Add. $179.4 + 0.81 + 21.65 + 95 + 4.7$
Solution -
 $= 301.56 \checkmark$

54, Subtract: $13.05 - 9.912$
Solution -
 $= 3.138 \checkmark$

55, Multiply: 0.0041×7.2
Solution -
 $0.02952 \checkmark$

56, Divide: $4.8 \div (-16)$
Solution -
 $= -0.3$

57, Divide: $8.55 \div 0.09$
Solution -
 $= 95 \checkmark$

58, Solve: $6x + 0.02 = 0.62$
Solution -

$$\begin{array}{r} 6x + 0.02 = 0.62 \\ -0.02 \quad -0.02 \\ \hline 6x = 0.60 \end{array}$$

Divide by 6
 $x = 0.10 \checkmark$

59,

- Solution -

$$0.34 + 0.22 \times 29 = \$6.72$$

60,

cereals / hour \Rightarrow Divide
 # of cereals by the hour.

$$0.6 \overline{) 4338} = 7230 \text{ boxes}$$

61,

Solve the proportion: $\frac{2.4}{4} = \frac{x}{9}$

- Solution -

Cross multiply.

$$21.6 = 4x \quad ; \text{ divide by } 4$$

$$x = 5.4 \checkmark$$

62,

Write 0.224 as percent.

- Solution -

Move the decimal 2 places to the right.

$$22.4\% \checkmark$$

63) 52%

- Solution -
 $52\% \Rightarrow \frac{52}{100}$ divide both sides by 4

$\frac{13}{25}$ (fraction notation)

$52\% = 0.52$ (decimal notation)

64) Write $\frac{4}{9}$ as percent.
- Solution -

$$\frac{4}{9} \times 100 = \frac{400}{9} = 44.\bar{4}\%$$

65) 65 is 40% of what?

- Solution -

Replace 'is' with =
 $\uparrow 40\% = 0.40$

\uparrow what with X.

$$65 = 0.40 X \quad \text{divide by } 0.40$$
$$X = 162.5 \checkmark$$

66

- Solution -

$$\begin{aligned} \text{Percent increase} &= \frac{(\text{Final} - \text{Original})}{\text{Original}} \times 100 \\ &= \frac{(392 - 367)}{367} \times 100 \end{aligned}$$

$$= \frac{25}{367} \times 100 = \frac{2500}{367} = 6.8\%$$

67,

$$\begin{aligned} \text{Percent decrease} &= \frac{(\text{Final} - \text{Original})}{\text{Original}} \times 100 \\ &= \frac{(45 - 50)}{50} \times 100 \end{aligned}$$

$$= \frac{5 \times 100}{50} = 10\%$$

68,

$$6\% = 0.06$$

$$\text{Taxes} = 0.06 \times 320 = \$19.20$$

$$\begin{aligned} \text{Total Price} &= \text{Price of Camera} + \text{taxes} \\ &= 320 + 19.20 = \$339.20 \end{aligned}$$

$$69, \quad \text{Sales tax} = \frac{\text{Part}}{\text{Whole}} \times 100$$

$$= \frac{27.50}{550} \times 100 = \frac{2750}{550} = 5\%$$

$$70, \quad 7\% = 0.07$$

$$\text{Commission} = 0.07 \times 720 = \$50.40 \checkmark$$

$$71, \quad \text{Discount} = 0.35 \times 24.00 = \$8.40$$

$$\text{Sale price} = 24.00 - 8.40 = \$15.60 \checkmark$$

$$72, \quad \text{Time} = 18 \text{ month} = 18 \div 12 = 1.5 \text{ years.}$$

$$\text{Interest} = \text{Principal} \times \text{rate} \times \text{time}$$

$$= 2260 \times 0.10 \times 1.5 = \$339 \checkmark$$

73, Compounded interest formula;

$$A = P \left(1 + \frac{r}{n} \right)^{nt} \quad n=1$$

$$A = 2000 (1 + 0.08)^2$$

$$= 2000 (1.08)^2$$

$$= 2000 \times 1.08 \times 1.08 = \$2332.80$$

74, Mean = average = $\frac{69+75+59+71+56}{5}$
= 66

75, Mode is the most popular #
27

76, Median is the middle # after
arranging the numbers from least
to greatest.

9, 9, 11, 22, 36, 44, 50
Median is 22 ✓

77, Arrange the numbers from least to
greatest: 6, 9, 11, 21, 25, 26

Since there are 2 middle #'s:

11 and 21. Add them and divide
by 2.

$$\frac{11+21}{2} = \frac{32}{2} = 16 \checkmark$$

78, 40,000

79, 1986

80, Between month 4 and 5.

