

1A

Sec 1.1

Translate to an algebraic expression

- (a) 5 more than A
- (b) product of 6 and some number
- (c) quotient of 2 and w
- (d) difference of 8 and B
- (e) M is subtracted from 12
- (f) 3 less than John's age
- (g) 62% of the freshmen

1B

Translate to an equation and do not solve:

- (a) Seven times what number is 84?
- (b) When 35 is added to some number, the result is 98.
- (c) Three times the sum of 1 and some number is 36. What is the number?
- (d) The quotient of a number when divided by four is two. Find the number.
- (e) The difference between three times a number and four is five times the number. Find the number.
- (f) Four less than five times a number is the same as the sum of twice the number and five.

1C

Evaluate:

- (a) $1 + x^3$ for $x = -2$
- (b) $50 \div 2 \cdot t$ for $t = -5$

1D

Sec 1.2

Simplify:

- (a) $6x + 5x$
- (b) $5y - 12y$
- (c) $-3w - 7v + 4w + v$
- (d) $6(3x - 2)$
- (e) $-5(2c - 4)$
- (f) $6z - 3(z + 7)$
- (g) $2(4m - 6) - 3(2m - 4)$
- (h) $4a - b - (2a - 5b)$

2

Sec 1.8

Simplify:

- (a) $12 - 2(5 - 9)$
- (b) $3 \cdot 4^2 - 16 - 4 + 3 - (1 - 2)^2$
- (c) $-2^2 + 12 \div 3 - (-5)$
- (d) $-5 + 7 - 2 - (-4) + (-3)$
- (e) $36 \div (-2)^2 + 4[5 - 3(8 - 9)^5]$
- (f) $\frac{(-2)^3 + 4^2}{2 \cdot 3 - 5^2 + 3 \cdot 7}$
- (g) -3^2
- (h) $(-5)^2$

3

Sec 2.1

Solve and check:

- (a) $y - 2 = 3$
- (b) $x + 3 = -4$
- (c) $-6.4 = y + 2.1$
- (d) $a + 3.7 = 5.4$
- (e) $-5x = 15$
- (f) $9.6 = 3y$
- (g) $\frac{2}{3}b = -4$
- (h) $-y = 3$
- (i) $5y + 6 = 31$
- (j) $-4x + 15 = -1$

4A

Sec 2.2

Solve and check:

- (k) $4x + 5x = -27$
- (l) $3a - 9a = -36$
- (m) $9x + 1 = 3x - 4$
- (n) $7y - 6 = 10y - 15$
- (o) $2x - 3(x - 5) = 18$
- (p) $10 - 3x = 2x - 8x + 40$
- (q) $5(t + 3) + 9 = 3(t - 2) + 6$
- (r) $-3(x + 2) = 2(2x + 4)$
- (s) $-7(1 - x) + 15 = 3(x + 8)$

LECTURES FOR EXAM #1

TO BE USED IN CLASS FOR EVERY LECTURE.

4B

Sec 2.2 continued

Clear fractions to solve and check.

(a) $\frac{1}{2}a - 3 = 1$

(b) $\frac{1}{2} + \frac{3}{4}x = 5$

5

Sec 2.3

(a) Solve for b : $2a + 3b = d$

(b) Solve for h : $A = \frac{1}{2}bh$

(c) Solve for l : $P = 2l + 2w$

(d) $M = \frac{A}{s}$. Solve for A

(e) Solve for k : $C = \frac{k+r}{2}$

6A

Sec 2.4

Write as a decimal:

- (a) 67% (c) 12.7%
(b) 0.3% (d) 150%

6B

Write as a fraction and reduce:

- (a) 20%

6C

Write as a percent:

- (a) 0.004
(b) 0.17
(c) 1.45
(d) $\frac{3}{5}$

6D

Write an equation and solve:

- (a) What is 30% of 140?
(b) Find 35% of 180.
(c) 6 is what percent of 50
(d) 40% of what number is 75?
(e) 150 is what percent of 25?

6E

Word Problems

(a) Mindy correctly answered 32 of the 40 questions on an exam. What percent of the questions were answered correctly?

(b) Doug paid \$72 for a portable CD player during a 20% off sale. What was the regular price?

(c) A little league has a total of 80 players, of whom 20 percent are left handed. How many players are left handed?

(d) A low calorie bread has 138 calories in a 3-slice serving. This is 20% fewer than the number of calories in a serving of regular bread.

How many calories are in the same size serving of regular bread. (Round to the nearest calorie.)

7

Sec. 2.5

Percent Increase/Percent Decrease

(a) The price of an inkjet printer decreased from \$80 to \$60. What was the percent of decrease?

(b) In a small town, the population increased from 21,000 in 1990 to 42,000 in the year 2000. What is the percent increase in population?

(c) At a supermarket, a certain item has increased from 75 cents per pound to 81 cents per pound. What is the percent increase in the cost of the item?

(d) Through diet and exercise, Nicki's weight decreased from 125 to 110 lbs. What was the percent decrease in Nicki's body weight?

8A

Sec 2.5

Word Problems

(a) When 22 is subtracted from 3 times a number, the result is 35. What is the number?

(b) Nine times the sum 6 and some number is 117. What is the number?

(c) Jack was 7 years older than Priscilla. Together their ages totaled 167 years. What were their ages?

TO BE USED IN CLASS FOR EVERY LECTURE.**8B****Perimeter Problems**

- (a) The perimeter of a rectangle is 70ft. The length is 5ft more than the twice the width. Find the length and width of the rectangle.
- (b) The perimeter of a rectangle is 50 m. The width of the rectangle is 5 m less than the length. Find the length and the width of the rectangle.

9**Sec 2.6****Solve and graph on a number line.**

- (a) $x+9 \geq 6$
- (b) $7x > -14$
- (c) $-6y \leq 42$
- (d) $-\frac{3}{5}x > -9$
- (e) $4y-6 \geq 3y-1$
- (f) $2x-9 < 7x+1$
- (g) $5(2x+7) > -4x-7$
- (h) $8y-5 \leq 3y$
- (i) $2x > 8x+12$

10A**Sec 3.1****Graph the following ordered pairs:**

- (a) (2, -1)
- (b) (-1, 2)
- (c) (0, -3)
- (d) (2, 4)
- (e) (1, 0)
- (f) (3, 2)

10B**Sec 3.2****Verify Solutions:**

- (a) Is (4, -3) a solution of $2x+3y=-1$?
- (b) Is (3, -1) a solution of $3x+y=10$?
- (c) Find the ordered-pair solution of $y = \frac{3}{4}x+2$ that corresponds to $x=-4$.
- (d) Solve for y: $3y+6x=12$
- (e) Solve for y: $x-5y=-15$

10C**Sec 3.2****Set up a table of values and graph:**

- (a) $y=2x+3$
- (b) $y = \frac{3}{4}x+2$
- (c) $x=2$
- (d) $-2x=3y$
- (e) $8x-4y=12$
- (f) $2y=-10$

