40a. Simplify     4(x - 3) + 2x + 6

40b. Simplify    -3(x - 4) + 2(3x + 6)

40c. Simplify     1/2(4x-6) + 3x + 2

41a. What is the value of x in the equation -6 = 4x + 6

41b. What is the value of x in the equation  3x - 4 = 11

42a. Which set of numbers is included in the solution set of 6 - 3x ≤ -3

(4, 0, -2, -4)
(3, 6, 8, 15)
(-3, -4, -9, -12)

42b. Solve the inequality

     -5x + 4 ≥ -21

22a.  When Derek planted a tree it was 36 inches tall. The tree grew 1 1/4 inches per year. The tree is now     44 3/4 inches tall. How many years ago did Derek plant the tree?

A 7

B 8

C 9

D 10

22b.  When Derek planted a tree it was 32 inches tall. The tree grew 1 3/4 inches per year. The tree is now 47 3/4 inches tall. How many years ago did Derek plant the tree?

23a. What is the solution to the inequality -3x − 42 > 3?

A x > −13
B x < −13

C x > −15

D x < −15

23b. What is the solution to the inequality 3x − 42 > 6?

23c. What is the solution to the inequality -2x + 39 > - 3?

24a. Evan has a summer job to pick berries on a farm.

- He earns $2.00 every 15 minutes that he picks strawberries.

- He earns $2.40 for every 15 minutes that he picks blueberries.

- He picked strawberries for an hour and blueberries for 45 minutes. How much money did Evan earn?

A $4.40

B $8.80

C $15.20

D $26.40

24b. Evan has a summer job to pick berries on a farm.

- He earns $2.00 every 5 minutes that he picks strawberries.

- He earns $2.40 for every 5 minutes that he picks blueberries.

- He picked strawberries for an hour and blueberries for 45 minutes. How much money did Evan earn?

19a.  Which expression is equivalent to

$^-4$ ( x + 2) - 1/2(2x − 6)?

     A $^-$5x − 4

     B $^-$5x − 5

     C $^-$8x − 4

     D $^-$8x − 5

19b.  Evaluate   -2 (x + 3) - 1/3 (3x - 9).

20a.  Anna saved $20 in a jar each month for 2  1/2 years. She spent 75% of her savings on a computer. How much money did Anna have left in the jar?

A  $150

B  $240

C  $450

D  $600

20b.  Anna saved $30 in a jar each month for 2  3/4 years. She spent 75% of her savings on a computer. How much money did Anna have left in the jar?

20c.  Anna saved $20 in a jar each month for 2  3/4 years. She spent 75% of her savings on a computer. How much money did Anna have left in the jar?

21a.  Mr. Jones spent $156 to attend a college football game.

• Twenty percent of this cost was for a parking pass.

• He spent the remainder of the money on two tickets for the game.

What was the price per ticket?

A  $15.60

B  $31.20

C  $62.40

D  $124.80

21b.  Mr. Jones spent $148 to attend a college football game.

• Twenty percent of this cost was for a parking pass.

• He spent the remainder of the money on four tickets for the game.

What was the price per ticket?

21c.  Mr. Jones spent $144 to attend a college football game.

• Twenty percent of this cost was for a parking pass.

• He spent the remainder of the money on two tickets for the game.

What was the price per ticket?

37a.  Karen spends $450 on monthly bills. Of this total amount, 12% is for phone service, 1/10 is for Internet service, and 2/9 is for utilities. If the rest of the total amount is for food, how much does Karen have for food?

A  $144.00

B  $199.00

C  $251.00

D  $277.00

37b.  Karen spends $450 on monthly bills. Of this total amount, 9% is for phone service, 1/15 is for Internet service, and 2/5 is for utilities. If the rest of the total amount is for food, how much does Karen have for food?

38a.  Jacob is 12 years younger than twice Elizabeth's age. Jacob is 28 years old. How old is Elizabeth?

A 8

B 14

C 16

D 20

38b.  Jacob is 10 years younger than twice Elizabeth's age. Jacob is 34 years old. How old is Elizabeth?

A 10

B 14

C 18

D 22

39b.  Solve and graph 14 - x > -2

Answers:  (remember with inequalities the sign changes if you multiply or divide by a negative)

40A:  6X - 6
40B:  3X + 24
40C:  5X -1
41A:  X = -3
41B:  X = 5
42A:  X = (3, 6, 8, 15)
42B:  < = 5
22A:  A 7
22B:  9
23B:  D  X<-15
23B:  X > 16
23C:  X < 21
24A:  C  $15.20
24B:  $46.50
19A:  -5X - 5
19B:  -3X - 3
20A:  $150
20B:  $247.50
20C:  $165
21A:  C. $62.40
21B:  $29.60
21C:  $57.60
37A:  C  $251
37B:  $199.50
38A:  D  20
38B:  D  22
39B:  X < 16