

משוואות לחטיבת הביניים

פרק 1

1) $3x - 9 = 51$

3) $2x - 7 = 35$

5) $2x - 10 = 5$

2) $4x - 11 = 27$

4) $10x - 4 = 66$

6) $9x - 4 = 23$

פרק 2

1) $2(x - 5) = 88$

3) $6(x - 3) = 18$

5) $2(2x + 1) = 6$

2) $4(x + 8) = 36$

4) $5(x + 2) = 20$

6) $3(2x - 7) = 9$

פרק 3

1) $5(x + 3) - 2x = 21$

3) $4(2 + 3x) - 7x = 53$

5) $6(x + 2) - 4x = 48$

2) $2(3x - 7) + 4x = 26$

4) $3(2x - 1) + 2(x + 5) = 55$

6) $3(x + 2) - (x - 1) = 17$

פרק 4

1) $2x + 3x + 8 + x = 44$

3) $4x + 5(x - 1) = 13$

5) $5(2x - 3) - 6x = 9$

2) $3(x + 10) + 21 = 60$

4) $x + 9 + 2x = 75$

6) $4(x + 5) + 3(x - 2) = 14$

פרק 5

1) $15 + 2x = 73$

4) $14x + 40 = 320$

7) $3y + 5 = 26$

2) $9y - 4y = 30$

5) $28 + 3x + 15 = 61$

8) $3x - 51 = 48$

3) $7x + 9x = 28 + 52$

6) $7x + 2x = 0$

9) $2x + 5 + 3x + 8 = 23$

פרק 6

$$1) 3x + 36 = 45$$

$$4) 8y + 11 = 27$$

$$7) 3x + 2x = 4 + 56$$

$$2) 7y + 4 - 3y = 28$$

$$5) 4x + 20 = 60$$

$$8) 4x - 3x + 5 = 9$$

$$3) 45 + x + 9 + x = 84$$

$$6) 15 + 6(x + 1) = 93$$

$$9) 5x + 12x - 9x - 7 = 1$$

פרק 7

1) $4x + 2 = 30$

5) $5x + 17 = 47$

9) $1.4x + 1.3 = 5.5$

2) $2y + 9 = 18$

6) $10x - 1 = 9$

10) $12.6 = 1.7x - 1$

3) $4y - 3 = 73$

7) $20y - 15 = 175$

11) $9x + 7 = 7$

4) $8x - 4 = 52$

8) $46 = 5x - 4$

12) $3.6x + 2.4 = 9.6$

פרק 8

$$1) 3(x + 7) = 27$$

$$5) 4(x - 2) = 24$$

$$9) 3(4y - 1) = 27$$

$$2) 10(x + 4) = 40$$

$$6) 2(2x + 1) = 6$$

$$10) 4(3x + 1) = 36$$

$$3) 20 = 5(y + 3)$$

$$7) 3(2y - 7) = 9$$

$$11) 5(4x - 3) = 65$$

$$4) 9(x - 3) = 63$$

$$8) 3(3x + 2) = 33$$

$$12) 0.2(x - 30) = 2.4$$

פרק 9

1) $9y + 6y + 15 = 90$

6) $3y + 5y + 4y + 8 = 44$

2) $4x + 2x + 5x + 7 = 40$

7) $5y + 5y = 40$

3) $4y - 13 + 3y = 50$

8) $2x + 3x = 80$

4) $4x + 9 + 2x + 4 + 4x = 123$

9) $21x + 8x + 11x = 1,200$

5) $3x + 4x = 28$

10) $6y + 17 + 5y - 3 + y = 20$

פרק 10

1) $8x + 3x + 4 = 70$

5) $4x + 3x + x = 8$

9) $3x = 58 + 14 + 72$

2) $94 + 6 = 28 + 5x - 3$

6) $2x + x = 21 + 15$

10) $8x + 4x = 0$

3) $5 + x + 3x = 10 - 2 + 5$

7) $32 + 16 = x + x + 8$

11) $1 + 4x + 2x = 50 - 1$

4) $11x - 5x + 2x + 9 = 13$

8) $56 + 40 = 3x + 4x - 9$

12) $9x + 11 - 3x = 43$

פרק 11

$$1) 3x + 7 + 2x - 1 = 26$$

$$7) 8(x + 3) + 2(x - 2) = 50$$

$$2) 4x - 3 + 5x = 15$$

$$8) 5(x + 1) + 4(x - 1) = 100$$

$$3) 6x + 8 - 4x + 3x = 48$$

$$9) 4(x + 3) + 4(x - 1) = 20$$

המשך פרק 11

4) $7x + 3 + 6x = 68$

10) $4(x - 7) + 4x = 0$

5) $3(x - 2) + 2x = 24$

11) $3(x + 2) - (x + 1) = 7$

6) $4(x + 6) - 3x = 25$

12) $5(x + 3) - (x + 4) = 53$

פרק 12

1) $2x + 7 + 4x - 3 = 20$

4) $4(x + 3) + 2(x + 1) = 74$

2) $3(x + 5) + 2(x - 3) = 19$

5) $7x + 6 - 4x - 3 = 27$

3) $5x + 2 - 2x = 20$

6) $5(x + 3) - (x + 1) = 26$

פרק 13

1) $8y + 2y - 3y + 4 = 60$

4) $5 + 6x = 29$

2) $8 + 5x + x = 20$

5) $8 + y + y + 4y = 26$

3) $9y - y + 7 - 2y = 31$

6) $18 - 8 = 10x + 5x - 20$

פרק 14

1) $6x - 3 + 4x - 5x = 9 + 13$

7) $18x - 7 - 2x - 5x = 70$

2) $5(x + 8) + 7x - 14 = 98$

8) $6 = 9x + x - 2x - 10$

3) $3(x + 1) + x = 5$

9) $4x + 21 + 3x = 21$

המשך פרק 14

4) $25 + 3(x - 6) = 25$

10) $2(x + 3) + 4(2x - 1) = 32$

5) $2(16 + 5x) + 7(5 + 2x) = 91$

11) $19 = 3x + 7 - 2x + 5x$

6) $25 = 11x + 13 - 7x$

12) $14 + 8x + 3x + x - 6 = 11$

פרק 15

1) $3(x + 3) + 2(x + 2) = 13$

4) $4(x + 2) + 3(x - 1) = 40$

2) $4(5x + 9) + 5(3x + 7) = 141$

5) $2(x + 2) + 3(x + 2) = 25$

3) $5(x + 1) + 3(2x + 1) = 41$

6) $9(x + 1) + 2(x + 2) - 4x = 55$

1) $3x = 18$

7) $1 - 8x = 17$

2) $x - 6 = 27$

8) $1 + 3x = 25$

3) $2x - 4 = 32$

9) $2x + 3 = 39$

4) $4x + 9 = 27$

10) $5x - 1 = 24$

5) $x + 6 = 6$

11) $5 - 4x = 45$

6) $9 + x = 23$

12) $36 = 9x$

פרק 17

$$1) \quad 6x + 9x - 7 = 23$$

$$7) \quad 10x - 3 - 5x - 9 = 13$$

$$2) \quad 2x - 5 + x = 7$$

$$8) \quad -3x + 5x + 10 = 20$$

$$3) \quad 2x + 4 + 3 = 17$$

$$9) \quad 4x + 8 + 3x = -6$$

המשך פרק 17

$$4) \quad -6x - 9 - 5x = 13$$

$$10) \quad 3(3x + 1) + 15x = -21$$

$$5) \quad -3x + 2 - x = -2$$

$$11) \quad 4(x + 1) - 25 = -7$$

$$6) \quad 5x + 6x - 9x + 8 = -4$$

$$12) \quad 4 - 5(3 - x) = 9$$

פרק 18

1) $9x + 1 = 5x + 13$

7) $8a + 12 = 3a + 57$

2) $5x - 5 = 2x + 4$

8) $12x + 1 = 7x - 19$

3) $10x + 12 = 3x - 16$

9) $5x - 4 = 4x + 3$

המשך פרק 18

$$4) \quad 1.3y - 1.5 = 1.2y + 1.9$$

$$10) \quad 2.5x + 10 = 1.5x + 17$$

$$5) \quad 5x + 3 = 15 - x$$

$$11) \quad -7x + 2x = 3 - 8x$$

$$6) \quad 6y + 37 = y + 102$$

$$12) \quad 0.8x + 4.8 = 0.6x + 0.8$$

פרק 19

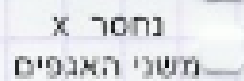
1) $3x + 24 = 7x$

6) $15 - 7x = 23x$

2) $2x + 16 = 6x$

7) $9x + 60 = 13x$

3) $24 + x = 11x$



8) $10 - 7y = 3y$

4) $6y + 16 = 10y$

9) $2.5x = 2.25x + 45$

5) $4.5x + 20 = 6.5x$

10) $13y + 21 = 20y$

1) $6x = 3x + 99$

6) $6 - x = 1 + 4x$

2) $3y - 4 = y + 8$

7) $1.4x - 11 = 0.2$

3) $11x + 90 = 20x$

8) $3.5x - 12 = x + 3$

4) $7x + 2 = 5x + 13$

9) $5x - 6 = 2x + 4$

5) $8 + 5y = 20 + 2y$

10) $2.6x + 4 = 1.1x + 11.5$

פרק 21

$$1) \quad 3x + 3 + 2x = 11 - x + 4$$

$$8) \quad 3x + 7 + 24 + 3 = 8 + 2x + 81$$

$$2) \quad 9x - 3x - 3 = 9 - 2x$$

$$9) \quad 5y + 6y + 96 = 20y + 6$$

$$3) \quad 35x + 7x - 6 = 36$$

$$10) \quad x + 2 + 5x + x = 15 - x + 5$$

$$4) \quad 6y + 11y + 24 = 36 - 19y$$

$$11) \quad 4x - 12 = 3x - x + 2$$

המשך פרק 21

$$5) \quad 2x + 15 + x = 3x + 21 - 5x$$

$$12) \quad 1.8x - 3.1 = 0.3x - 1.6$$

$$6) \quad 44 + 6x - 11 - 4x = 5x + 18$$

$$13) \quad \frac{1}{2}x + 2 = 20 - \frac{1}{2}$$

$$7) \quad 8x + 4.6 + x = 12x - 2$$

$$14) \quad \frac{1}{3}x - 5 = 11$$

תשובות

תשובות לרמה 1:

7.5 (5) 7 (4) 21 (3) 9.5 (2) 20 (1)
3 (6)

תשובות לרמה 2:

5 (6) 1 (5) 2 (4) 6 (3) 1 (2) 49 (1)

תשובות לרמה 3:

5 (6) 18 (5) 6 (4) 9 (3) 4 (2) 2 (1)

תשובות לרמה 4:

0 (6) 6 (5) 22 (4) 2 (3) 3 (2) 6 (1)

תשובות לרמה 5:

6 (5) 20 (4) 5 (3) 6 (2) 29 (1)
2 (9) 33 (8) 7 (7) 0 (6)

תשובות לרמה 6:

12 (6) 10 (5) 2 (4) 15 (3) 3 (1)
1 (9) 4 (8) 6 (2)
12 (7)

תשובות לרמה 7:

6 (5)	7 (4)	19 (3)	4.5 (2)	7 (1)
8 (10)	3 (9)	10 (8)	9.5 (7)	1 (6)
			2 (12)	0 (11)

תשובות לרמה 8:

		1 (3)	0 (2)	2 (1)
3 (8)	5 (7)	1 (6)	8 (5)	10 (4)
	42 (12)	4 (11)	$2\frac{2}{3}$ (10)	2.5 (9)

תשובות לפרק 9:

				5 (1)
3 (6)	4 (5)	11 (4)	9 (3)	3 (2)
	0.5 (10)	30 (9)	16 (8)	4 (7)

תשובות לפרק 10:

				6 (1)
12 (6)	1 (5)	0.5 (4)	2 (3)	15 (2)
8 (11)	0 (10)	48 (9)	15 (8)	20 (7)
				$5\frac{1}{3}$ (12)

תשובות לפרק 11:

6 (5)	5 (4)	8 (3)	2 (2)	4 (1)
3.5 (10)	1.5 (9)	11 (8)	3 (7)	1 (6)
			10.5 (12)	1 (11)

תשובות לפרק 12:

3 (6)	8 (5)	10 (4)	6 (3)	2 (2)	$2\frac{2}{3}$ (1)
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תשובות לפרק 19:

10 (5)	4 (4)	2.4 (3)	4 (2)	6 (1)
3 (10)	180 (9)	1 (8)	15 (7)	0.5 (6)

תשובות לפרק 20:

4 (5)	5.5 (4)	10 (3)	6 (2)	33 (1)
5 (10)	$3\frac{1}{2}$ (9)	6 (8)	8 (7)	1 (6)

תשובות לפרק 21:

1.2 (5)	$\frac{1}{3}$ (4)	1 (3)	1.5 (2)	2 (1)
$2\frac{1}{4}$ (10)	10 (9)	55 (8)	2.2 (7)	5 (6)
	48 (14)	35 (13)	1 (12)	7 (11)

תשובות לפרק 22:

8 (5)	4 (4)	7 (3)	-8 (2)	2 (1)
0 (10)	3 (9)	-3 (8)	-1 (7)	4 (6)
-1 (15)	-1 (14)	4 (13)	5 (12)	5.5 (11)
				3 (16)

תשובות לפרק 23:

	-23 (4)	5.5 (3)	5 (2)	5 (1)
18 (9)	4 (8)	1.5 (7)	-11 (6)	2 (5)
				-34 (10)

תשובות לפרק 24:

-10 (5)	-10 (4)	-5 (3)	-6 (2)	2 (1)
0.5 (10)	2 (9)	0.5 (8)	-8 (7)	4 (6)
			2 (12)	-1 (11)

תשובות לפרק 25

1 (5)	2 (4)	0.5 (3)	-2 (2)	2 (1)
1 (10)	-1 (9)	$\frac{3}{4}$ (8)	-0.5 (7)	-1 (6)
0 (15)	-32 (14)	3 (13)	2 (12)	4 (11)
				-44 (16)

תשובות לפרק 26

0.5 (5)	2 (4)	6 (3)	4 (2)	8 (1)
7 (10)	-1 (9)	9 (8)	5 (7)	2 (6)
3 (15)	-1 (14)	-2 (13)	-10 (12)	1 (11)

תשובות לפרק 27

1.5 (5)	7 (4)	2 (3)	6 (2)	8 (1)
		15 (8)	9 (7)	2.5 (6)

תשובות לפרק 28

-3 (5)	5 (4)	$1\frac{2}{3}$ (3)	0.6 (2)	3 (1)
		13 (8)	-30 (7)	-2 (6)

תשובות לפרק 29

			8 (2)	6
7 (7)	-1 (6)	1 (5)	-0.5 (4)	2 (3)
				3 (8)

תשובות לפרק 30

2 (5)	-4 (4)	5.5 (3)	1 (2)	-12.5 (1)
-13 (10)	5 (9)	0 (8)	4 (7)	-8 (6)

1) $4(2x - 5) - 5(2 - 3x) = -76$

2) $8(3x - 4) + 4(3 - 4x) = 36$

3) $4(2x - 3) - 5(3x - 2) = 12$

4) $2(4 - x) + 5(3 + x) = 38$

5) $2(7 - x) + 5 = 4x + 5(2 - x)$

$$6) \quad 7(x - 3) - 5(x + 4) = 10x - 33$$

$$7) \quad 4(x + 3) - (x - 4) = 5x + 12$$

$$8) \quad 3(3 - x) - 9(x + 3) = -7(x - 1)$$

$$9) \quad -2(2x + 5) - 7(x + 1) = 3(1 - 4x)$$

10) $7(x - 2) - 5(x - 8) = 10(x - 3)$

11) $7(2x - 8) - 9(x - 6) = 8 - 5(x - 4)$

$$12) \quad 24x + 15 = -7x - \frac{1}{2}$$

תשובות

$\frac{2}{3}$ (5

8 (4

2 (3

-4 (2

-2 (1

7 (10

20 (9

-5 (8

1.5 (7

6 (6

$-\frac{1}{2}$ (12

3 (11