

مادة الرياضيات (السنة الأولى من التعليم المتوسط)

حل المعادلات بطريقة حل المشكلات

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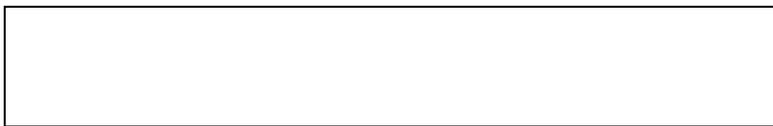
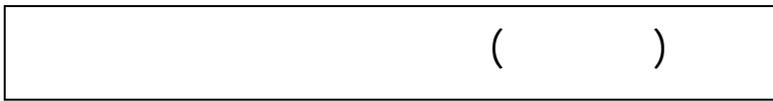
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$$\begin{aligned}
 & \qquad \qquad \qquad : \qquad \qquad \qquad : \\
 & \qquad \qquad \qquad : \qquad \qquad + \qquad + \qquad + \\
 & \qquad \qquad \qquad x + 3 + x + 3 = 20 \\
 & \qquad \qquad \qquad 2x + 6 = 20 \\
 & \qquad \qquad \qquad 2x = 20 - 6 \\
 & \qquad \qquad \qquad x = \frac{14}{2} \\
 & \qquad \qquad \qquad x = 7
 \end{aligned}$$

$$\begin{aligned}
 & \qquad \qquad \qquad : \\
 & \qquad \qquad \qquad \qquad \qquad \qquad - 1 \\
 & \qquad \qquad \qquad 21 + t = 50 \qquad (1^*) \\
 & \qquad \qquad \qquad t = 50 - 21
 \end{aligned}$$

$$\begin{aligned}
 & 12 - x = 8 \qquad (2^*) \\
 & 12b = 24 \qquad (3^*) \\
 & b = \frac{12}{24}
 \end{aligned}$$

$$\begin{aligned}
 & 50a = 200 \qquad (4^*) \\
 & a = 4
 \end{aligned}$$

(3), (2), (1):

-2

3	2	1	
$\frac{31.6}{4.3}$	$31.6-4.3$	$31.6+4.3$	$4.3 + x = 31.6 :$ -1
$\frac{80}{31.5}$	$80+31.5$	$80-31.5$	$80-x = 31.5 :$ -2
$64.8+3$	$64.8-3$	$\frac{64.8}{3}$	$3 \times x = 64.8 :$ -3
8	16	21	$B = (3 \times a) + b :$ -4 $a = 4.5$ $b = 2.5$ B

: x -3

$$x + 14 = 12, \quad x - 24 = 12, \quad 7 \times x = 28$$

$$5 \times x + 3 = 33, \quad x : 4 = 37, \quad x : 5 = 24$$

$$26.4 \quad 30.6 \quad , \quad 255 \quad -4$$

x

$$26.4 \quad 30.6 \quad , \quad 155 \quad -5$$

x

26.4

30.6

,

98

- 6

x

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: _____

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:

32

65

2310kg

:

:

:

. 33 = 32-65

. 33

. 2310 kg

.

. 70 kg= 33 : 2310

:

$$2840 - 4550 = (33 \times 70) - (65 \times 70)$$

$$. 2310 = (33 \times 70) - (65 \times 70)$$

:

:

:

x

.

x

$$(x \times 65) - (x \times 32) = 2310$$

$$65x - 32x = 2310$$

$$33x = 2310$$

:

x

. 33

2310

$$x = 2310 : 33 :$$

$$x = 70$$

. 70 kg

:

,

,

:

x

:(1)

$$33x = 2310 :$$

$$2310 *$$

$$x *$$

$$70 *$$

(2)

x

x

x

$$65x - 32x = 2310 :$$

$$x = 70$$

x

70

:

:

- 1

x

:

- 2

:

- 3

:

- 4

$$(a = b) \Rightarrow (a + n = b + n)$$

$$(a = b) \Rightarrow (a n = b n)$$

- 1

$$: \quad b \quad a : \quad - 2$$

$$(a \geq n , a = b) \Rightarrow (a - n = b - n)$$

- 3

$$(n \neq 0 , n a = n b) \Rightarrow a = b \quad :$$

- 4

- 5

- 6

:

$$(a = b) \Rightarrow (n a = n b)$$

: (1)

$$\frac{2x}{3} - \frac{1}{2} = \frac{x}{6} + 2 \quad (1)$$

· ($2x$, $\frac{1}{2}$, $\frac{x}{6}$, 2) :

: (1) 6

$$\frac{4x}{3} - \frac{3}{6} = \frac{x}{6} + \frac{12}{6}$$

: 6

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

· (2) (1)

:

$$(a = b) \Rightarrow (a + n = b + n)$$

$$(a \geq n, a = b) \Rightarrow (a - n = b - n)$$

(2) 3 : (2)

:

$$4x = x + 15 \quad (3)$$

(2) (3)

$$(3) \quad x$$

:

$$3x = 15 \quad (4)$$

$$(3) \quad (4)$$

$$(3) \quad : \underline{\hspace{2cm}}$$

$$4x = x + 12 + 3 \quad 4x = x + 15$$

3

$$(3) :$$

$$4x = x + 15$$

:

$$4x - x = 3x - 15$$

x

:

-

$$(n \neq 0, na = nb) \Rightarrow (a = b)$$

x

-

-

(4) :

$$3x = 15$$

$$x = 5 :$$

(1) :

$$\frac{2x}{3} - \frac{1}{2} = \frac{x}{6} + 2$$

$$\cdot \quad 5$$

$$(1) \quad 5$$

$$: \quad 5 \quad x$$

$$\frac{10}{3} - \frac{1}{2} = \frac{20}{6} - \frac{3}{6}$$

$$\frac{10}{3} - \frac{1}{2} = \frac{17}{6}$$

:

$$\frac{5}{6} + 2 = \frac{5}{6} + \frac{12}{6}$$

$$\frac{5}{6} + 2 = \frac{17}{6}$$

$$(1) \quad 5$$

:

-1

$$\cdot \quad x$$

-2

- 3

- 4

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24

7

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55

43

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500 g

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x 4.25 g

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DA

15 DA

8

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20

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6

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. 40cm 50 cm

-1

-2

-3

. 2.5 cm

-6

. 17.5 cm

-

. 22

10 -7

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10 - x = 22 -

10 + x = 22 -

x + 22 = 10 -

-8

x x + 15 = 29

54.6 700 -9

. 200

-10

.45 m () x -1

. 1500 . P -2

. x 72 -3

-11

x

5 (x + 1) , 4 (x + 1) , 5 x , 4 x

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-1

-2

25 -3