

LISTA DE EQUAÇÕES DO 1º GRAU COM UMA INCÓGNITA

1- Resolva as equações em Z:

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|-----------------------|---------------------------------|
| a) $6x = 2x + 16$ | i) $16x - 1 = 12x + 3$ |
| b) $2x - 5 = x + 1$ | j) $3x - 2 = 4x + 9$ |
| c) $2x + 3 = x + 4$ | k) $5x - 3 + x = 2x + 9$ |
| d) $5x + 7 = 4x + 10$ | l) $17x - 7x = x + 18$ |
| e) $4x - 10 = 2x + 2$ | m) $x + x - 4 = 17 - 2x + 1$ |
| f) $4x - 7 = 8x - 2$ | n) $x + 2x + 3 - 5x = 4x - 9$ |
| g) $2x + 1 = 4x - 7$ | o) $5x + 6x - 16 = 3x + 2x - 4$ |
| h) $9x + 9 + 3x = 15$ | p) $5x + 4 = 3x - 2x + 4$ |

2- Resolva as equações:

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|-----------------------------|---|
| a) $4x - 1 = 3(x - 1)$ | l) $4(x + 10) - 2(x - 5) = 0$ |
| b) $3(x - 2) = 2x - 4$ | m) $3(2x + 3) - 4(x - 1) = 3$ |
| c) $2(x - 1) = 3x + 4$ | n) $7(x - 1) - 2(x - 5) = x - 5$ |
| d) $3(x - 1) - 7 = 15$ | o) $2(3 - x) = 3(x - 4) + 15$ |
| e) $7(x - 4) = 2x - 3$ | p) $3(5 - x) - 3(1 - 2x) = 42$ |
| f) $3(x - 2) = 4(3 - x)$ | q) $(4x + 6) - 2x = (x - 6) + 10 + 14$ |
| g) $3(3x - 1) = 2(3x + 2)$ | r) $(x - 3) - (x + 2) + 2(x - 1) - 5 = 0$ |
| h) $7(x - 2) = 5(x + 3)$ | s) $3x - 2(4x - 3) = 2 - 3(x - 1)$ |
| i) $3(2x - 1) = -2(x + 3)$ | t) $3(x - 1) - (x - 3) + 5(x - 2) = 18$ |
| j) $5x - 3(x + 2) = 15$ | u) $5(x - 3) - 4(x + 2) = 2 + 3(1 - 2x)$ |
| k) $2x + 3x + 9 = 8(6 - x)$ | |

3- Resolva as equações:

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|----------------------------|----------------------------------|
| a) $3x - 7 = 2x + 5$ | k) $5x - 5 + x = 9 + x$ |
| b) $7x + 8 = 4x - 10$ | l) $7x - 4 - x = -2x + 8 - 3x$ |
| c) $4x - 15 = -2x + 3$ | m) $-x - 5 + 4x = -7x + 6x + 15$ |
| d) $2x - 4 - 8 = 4x$ | n) $3x - 2x = 3x + 2$ |
| e) $3x = x + 1 + 7$ | o) $2 - 4x = 32 - 18x + 12$ |
| f) $360 + 36x = 30x$ | p) $2x - 1 = -3 + x + 4$ |
| g) $2x + 5 - 5x = -1$ | q) $3x - 2 - 2x - 3 = 0$ |
| h) $5 + 6x = 5x + 2$ | r) $10 - 9x + 2x = 2 - 3x$ |
| i) $x + 2x - 1 - 3 = x$ | s) $4x - 4 - 5x = -6 + 90$ |
| j) $-3x + 10 = 2x + 8 + 1$ | t) $2 - 3x = -2x + 12 - 3x$ |

4- Resolva as equações:

- | | |
|------------------------------|--------------------------------|
| a) $7(x - 5) = 3(x + 1)$ | e) $13 + 4(2x - 1) = 5(x + 2)$ |
| b) $3(x - 2) = 4(-x + 3)$ | f) $4(x + 5) + 3(x + 5) = 21$ |
| c) $2(x + 1) - (x - 1) = 0$ | g) $2(x + 5) - 3(5 - x) = 10$ |
| d) $5(x + 1) - 3(x + 2) = 0$ | h) $8(x - 1) = 8 - 4(2x - 3)$ |

5- Resolva as seguintes equações:

a) $\frac{x}{4} - \frac{x}{6} = 3$

b) $\frac{3x}{4} - \frac{x}{3} = 5$

c) $\frac{x}{5} - 1 = 9$

d) $\frac{x}{3} - 5 = 0$

e) $\frac{x}{2} + \frac{3x}{5} = 6$

f) $\frac{x}{5} + \frac{x}{2} = \frac{7}{10}$

g) $5x - 10 = \frac{x+1}{2}$

h) $\frac{8x-1}{2} - 2x = 3$

i) $\frac{2x-7}{5} = \frac{x+2}{3}$

j) $\frac{5x}{2} = 2x + \frac{x-2}{3}$

k) $\frac{x-3}{4} - \frac{2x-1}{5} = 5$

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

m) $\frac{5x-7}{2} = \frac{1}{2} + x$

n) $\frac{2x-1}{3} = x - \frac{x-1}{5}$

o) $\frac{x}{4} + \frac{3x-2}{2} = \frac{x-3}{2}$

p) $\frac{2(x-1)}{3} = \frac{3x+6}{5}$

q) $\frac{3(x-5)}{6} + \frac{2x}{4} = 7$

r) $\frac{x}{5} - 2 = \frac{5(x-3)}{4}$

6- Resolva as seguintes equações:

a) $\frac{x}{2} - \frac{x}{4} = \frac{1}{2}$

b) $\frac{x}{2} - \frac{x}{4} = 5$

c) $\frac{x}{5} + \frac{x}{2} = \frac{7}{10}$

d) $\frac{x}{5} + 1 = \frac{2x}{3}$

e) $\frac{x}{2} + \frac{x}{3} = 1$

f) $\frac{x}{3} + 4 = 2x$

g) $\frac{x}{2} + 4 = \frac{1}{3}$

h) $\frac{5x}{3} - \frac{2}{5} = 0$

i) $x - 1 = 5 - \frac{x}{4}$

j) $x + \frac{x}{2} = 15$

k) $\frac{8x}{3} = 2x - 9$

l) $\frac{x}{2} + \frac{3}{4} = \frac{1}{6}$

m) $\frac{x}{2} - 7 = \frac{x}{4} + 5$

n) $2x - \frac{1}{2} = 5x + \frac{1}{3}$

o) $x - 1 = 5 - \frac{x}{4}$

p) $\frac{x}{6} + \frac{x}{3} = 18 - \frac{x}{4}$

q) $\frac{x}{4} + \frac{x}{6} + \frac{x}{8} = 26$

r) $\frac{x}{8} + \frac{x}{5} = 17 - \frac{x}{10}$

s) $\frac{x}{4} - \frac{x}{3} = 2x - 50$

t) $\frac{5x}{2} + 7 = 2x + 4$

u) $\frac{x}{2} + \frac{x}{3} = \frac{x+7}{3}$

v) $\frac{x+2}{6} + \frac{x+1}{4} = 6$

w) $\frac{x-2}{3} - \frac{x+1}{4} = 4$

x) $\frac{x-1}{2} + \frac{x-2}{3} = \frac{x-3}{4}$

y) $\frac{2x-3}{4} - \frac{1}{3} = \frac{-x+2}{2}$

z) $\frac{2x-3}{4} - \frac{2-x}{3} = \frac{x-1}{3}$

aa) $\frac{3x-2}{4} = \frac{3x+3}{8}$

bb) $\frac{3x+5}{4} - \frac{2x-3}{3} = 3$

cc) $x + \frac{2(x-2)}{3} = \frac{5x}{4}$

dd) $\frac{2x+1}{4} - \frac{3(3-x)}{2} = \frac{56+x}{16}$

Respostas dos exercícios:

QUESTÃO 2:

a) $x = -2$

b) $x = 2$

c) $x = -6$

d) $x = \frac{25}{3}$

e) $x = 5$

f) $x = \frac{18}{7}$

g) $x = \frac{7}{3}$

h) $x = \frac{29}{2}$

i) $x = \frac{-3}{8}$

j) $x = \frac{21}{2}$

k) $x = 3$

l) $x = -25$

m) $x = -5$

n) $x = -2$

o) $x = \frac{3}{5}$

p) $x = 10$

q) $x = 12$

r) $x = 6$

s) $x = \frac{1}{2}$

t) $x = 4$

u) $x = 4$

QUESTÃO 3:

a) $x = 12$

b) $x = -6$

c) $x = 3$

d) $x = -6$

e) $x = 4$

f) $x = -60$

g) $x = 2$

h) $x = -3$

i) $x = 2$

j) $x = \frac{1}{2}$

k) $x = \frac{14}{5}$

l) $x = \frac{12}{11}$

m) $x = 5$

n) $x = -1$

o) $x = 3$

p) $x = 2$

q) $x = 5$

r) $x = 2$

s) $x = -88$

t) $x = 5$

QUESTÃO 4:

a) $x = \frac{19}{2}$

b) $x = \frac{18}{7}$

c) $x = -3$

d) $x = \frac{1}{2}$

e) $x = \frac{1}{3}$

f) $x = -2$

g) $x = 3$

h) $x = \frac{7}{4}$

QUESTÃO 5:

a) $x = 36$

b) $x = 12$

c) $x = 50$

d) $x = 15$

e) $x = 60$

f) $x = 1$

g) $x = \frac{21}{9}$

h) $x = \frac{7}{4}$

i) $x = 31$

j) $x = -4$

k) $x = -37$

l) $x = 9$

m) $x = \frac{8}{3}$

n) $x = -4$

o) $x = -\frac{2}{5}$

p) $x = 28$

q) $x = \frac{57}{6}$

r) $x = \frac{35}{21}$

QUESTÃO 6:

a) $x = 2$

b) $x = 20$

c) $x = 1$

d) $x = \frac{15}{13}$

e) $x = \frac{6}{5}$

f) $x = \frac{12}{5}$

g) $x = -\frac{22}{3}$

h) $x = \frac{6}{25}$

i) $x = \frac{24}{5}$

j) $x = 10$

k) $x = -\frac{27}{2}$

l) $x = -\frac{7}{6}$

m) $x = 48$

n) $x = -\frac{5}{18}$

o) $x = \frac{24}{5}$

p) $x = 24$

q) $x = 28$

r) $x = 40$

s) $x = 24$

t) $x = -6$

u) $x = \frac{14}{3}$

v) $x = 83$

w) $x = 59$

x) $x = \frac{5}{7}$

y) $x = \frac{25}{12}$

z) $x = \frac{13}{6}$

aa) $x = \frac{7}{3}$

bb) $x = 9$

cc) $x = \frac{16}{5}$

dd) $x = \frac{124}{31}$