



How do you scare a snowman?

Key

To discover the answer, solve the following equations. Find your answer in the answer column. Notice the letter next to it. This letter goes in each box at the bottom of the page that contains the problem number

problem number	equation	problem number	equation	answer	letter to use
1	$-295 = -8m - 15$ 35 A	11	$2x + 7(x - 8) = 7(4 + x) + 8x$ -14 R	3	space
2	$38 - 2n = 7(n + 8)$ -2 R	12	$15 = 14 + \frac{n}{25}$ 25 E	22	d
3	$-7(x - 4) = 28 - 6x$ 0 H	13	$4(-k + 8) = 2(-k + 5)$ 11 R	-12	g
4	$6 + 2(x + 2) = -x + 31$ 7 E	14	$-4(y + 3) = -4y + 20$ NS Y	-2	r
5	$-3m + 9 = -4(3 - m)$ 3 SPACE	15	$7(n - 7) - 7(2 + 3n) = 9 - 8n$ 12 G	-38	o
6	$33 - 7x = -(4x + 7) - 8x$ -8 Y	16	$\frac{x+3}{35} = -1$ -38 O	all real numbers	u
7	$14 - 7p = -7(p - 2)$ ARN U	17	$-16(-3 + m) = -272$ 20 A	-1	space
8	$-8n - 2(6 + n) = 3(8 - 2n)$ -9 !	18	$5(7x + 7) = 6(-2x - 2)$ -1 SPACE	-8	y
9	$6 + \frac{x}{2} = 17$ 22 D	19	$\frac{n}{2} - 3 = 2$ 10 T	5	i
10	$4(1 + 5n) + 4 = 6(6 + 4n)$ -7 SPACE	20	$-14 + 5n = 3 + 8(n - 4)$ 5 I	35	a

Answer to riddle

problem number	14	16	7	5	15	4	19	18	17	10	3	1	20	11	9	13	6	12	2	8
letter	Y	O	U	SPACE	G	E	T	A	A	SPACE	H	A	I	R	D	R	Y	E	R	!

Handwritten notes at the top of the page, possibly including a date and some illegible text.

$$\begin{array}{r} X = 10.5 \\ \hline 8x = 84 \end{array}$$

$$9x - 56 = 28 + x$$

$$2x + 7(4 - x) = 28 - 7x + 8x + 28$$

$$2x + 7(x - 8) = 28 - 7x + 8x + 28$$

Vertical text on the left margin, possibly a page number or date.

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KEY

$$\begin{aligned} \textcircled{1} \quad -295 &= -8m - 15 \\ -280 &= -8m \end{aligned}$$

$$\boxed{35 = m}$$

$$\begin{aligned} \textcircled{2} \quad 38 - 2n &= 7(n+8) \\ 38 - 2n &= 7n + 56 \\ 38 &= 9n + 56 \\ -18 &= 9n \end{aligned}$$

$$\boxed{-2 = n}$$

$$\begin{aligned} \textcircled{3} \quad -7(x-4) &= 28 - 6x \\ -7x + 28 &= 28 - 6x \\ 28 &= 28 + 1x \end{aligned}$$

$$\boxed{0 = x}$$

$$\begin{aligned} \textcircled{4} \quad 6 + 2(x+2) &= -x + 31 \\ 6 + 2x + 4 &= -x + 31 \\ 2x + 10 &= -x + 31 \end{aligned}$$

$$3x + 10 = 31$$

$$3x = 21$$

$$\boxed{x = 7}$$

$$\begin{aligned} \textcircled{5} \quad -3m + 9 &= -4(3-m) \\ -3m + 9 &= -12 + 4m \\ 9 &= -12 + 7m \\ 21 &= 7m \end{aligned}$$

$$\boxed{3 = m}$$

$$\begin{aligned} \textcircled{6} \quad 33 - 7x &= -(4x+7) - 8x \\ 33 - 7x &= -4x - 7 - 8x \\ 33 - 7x &= -12x - 7 \\ 33 + 5x &= -7 \end{aligned}$$

$$5x = -40$$

$$\boxed{x = -8}$$

$$\begin{aligned} \textcircled{7} \quad 14 - 7p &= -7(p-2) \\ 14 - 7p &= -7p + 14 \end{aligned}$$

All Real NUMBERS

$$\begin{aligned} \textcircled{8} \quad -8n - 2(6+n) &= 3(8-2n) \\ -8n - 12 - 2n &= 24 - 6n \end{aligned}$$

$$-10n - 12 = 24 - 6n$$

$$-12 = 24 + 4n$$

$$-36 = 4n$$

$$\boxed{-9 = n}$$

$$\begin{aligned} \textcircled{9} \quad 6 + \frac{x}{2} &= 17 \\ \frac{x}{2} &= 11 \end{aligned}$$

$$\boxed{x = 22}$$

$$(10) \quad 4(1+5n)+4 = 6(6+4n)$$

$$4+20n+4 = 36+24n$$

$$20n+8 = 36+24n$$

$$8 = 36+4n$$

$$-28 = 4n$$

$$\boxed{-7 = n}$$

$$(11) \quad 2x+7(x-8) = 7(4+x)+8x$$

$$2x+7x-56 = 28+7x+8x$$

$$9x-56 = 28+15x$$

$$-56 = 28+6x$$

$$-84 = 6x$$

$$\boxed{-14 = x}$$

$$(12) \quad 15 = 14 + \frac{n}{25}$$

$$1 = \frac{n}{25}$$

$$\boxed{25 = n}$$

$$(13) \quad 4(-k+8) = 2(-k+5)$$

$$-4k+32 = -2k+10$$

$$32 = 2k+10$$

$$22 = 2k$$

$$\boxed{11 = k}$$

$$(14) \quad -4(y+3) = -4y+20$$

$$-4y-12 = -4y+20$$

$\boxed{\text{No possible solutions}}$

$$(15) \quad 7(n-7) - 7(2+3n) = 9-8n$$

$$7n-49-14-21n = 9-8n$$

$$-14n-63 = 9-8n$$

$$-63 = 9+6n$$

$$-72 = 6n$$

$$\boxed{-12 = n}$$

$$(16) \quad \frac{x+3}{35} = -1$$

$$x+3 = -35$$

$$\boxed{x = -38}$$

$$(17) \quad 16(-3+m) = -272$$

$$48-16m = -272$$

$$-16m = -320$$

$$\boxed{m = 20}$$

$$(18) \quad 5(7x+7) = 6(-2x-2)$$

$$35x+35 = -12x-12$$

$$47x+35 = -12$$

$$47x = -47$$

$$\boxed{x = -1}$$

$$(19) \quad \frac{n}{2} - 3 = 2$$

$$\frac{n}{2} = 5$$

$$\boxed{n = 10}$$

$$(20) \quad -14+5n = 3+8(n-4)$$

$$-14+5n = 3+8n-32$$

$$-14+5n = 8n-29$$

$$-14 = 3n-29$$

$$\frac{15}{3} = \frac{3n}{3}$$

$$\boxed{5 = n}$$