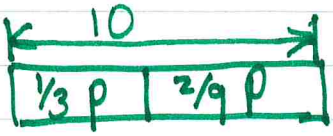
Solving Linear Equations Practice Test answers

① 

$\frac{1}{3}p + \frac{2}{9}p = 10$

$\frac{3}{9}p + \frac{2}{9}p = 10$

$\frac{5}{9}p = 10$

$p = 10\left(\frac{9}{5}\right)$

$p = 18$

She has 18 pounds of seeds

② $20 plus monthly rate of $30.

$20 + 30m = 80$

$30m = 80 - 20$

$30m = 60$

$m = \frac{60}{30}$

$m = 2$

Avi rented the instrument for 2 months

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Edy	=	Juan
$450+40m$	=	$975-45.45m-19.55m$
$450+40m$	=	$975-65m$
$40m+65m$	=	$975-450$
$105m$	=	525
m	=	$\frac{525}{105}$
$m=5$		

*They are the same in 5 months

(Deposit +) (Checks −)

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product	answer to ×
sum	answer to +
difference	answer to −
quotient	answer to ÷

Fractions

$(x-8)\frac{4}{5} = 20$

$\frac{4}{5}x-\frac{32}{5} = \frac{100}{5}$

$\frac{4}{5}x = \frac{100}{5}+\frac{32}{5}$

$(\frac{5}{4})\frac{4}{5}x = \frac{132}{5}(\frac{5}{4})$

$x = 33$

Decimals

$(x-8).8 = 20$

$.8x-6.4 = 20$

$.8x = 26.4$

$x = 33$

(5) $-.2(x-20) = 44-x$

$-.2x+4 = 44-x$

$-.2x+x = 44-4$

$0.8x = 40$

$x = \frac{40}{.8}$

$x = 50$

(6) $\frac{1}{5}x + \frac{3}{10}x = 9-6.7x$

Some are fractions and some are decimals
Make them the same form

$.2x+.3x = 9-6.7x$

$.5x = 9-6.7x$

$.5x+6.7x = 9$

$7.2x = 9$

$x = \frac{9}{7.2}$

$x = 1.25$

(7) $-4(x-1)+6x = 2(17-x)$

$-4x+4+6x = 34-2x$

$2x+4 = 34-2x$

$2x+2x = 34-4$

$4x = 30$

$x = 7.5$

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(8) $-\frac{2}{3}d - \frac{1}{4}d = -22$

$-\frac{8}{12}d - \frac{3}{12}d = -22$

$-\frac{11}{12}d = -22$

$d = -22\left(\frac{12}{-11}\right)$

$d = 24$

(9) $\frac{3}{4}x + x - 5 = 10 + 2x$

$.75x + x - 5 = 10 + 2x$

$1.75x - 5 = 10 + 2x$

$1.75x - 2x = 10 + 5$

$-.25x = 15$

$x = \frac{15}{-.25}$

$x = -60$

(10) $3x - 2.7 = 2x + 2.7 + x$

$\boxed{3x} - 2.7 = \boxed{3x} + 2.7$

$-3x \qquad -3x$

$-2.7 \neq 2.7$

No Solution

(11) $9x + 4.5 - 2x = 2.3 + 7x + 2.2$

$7x + 4.5 = 7x + 4.5$

$-7x \quad\quad -7x$

$4.5 \neq 4.5$

Infinetely Many Solutions

(12) $.2x - 7 = \frac{3}{4} + 2x - 25.75$ Make the same form

$.2x - 7 = .75 + 2x - 25.75$

$.2x - 7 = 2x - 25$

$.2x - 2x = -25 + 7$

$-1.8x = -18$

$x = \frac{-18}{-1.8}$

$x = 10$

(13) B $-2(3x-1) = -6x - 1$ No solution

$-6x + 2 = -6x - 1$

$2 \neq -1$

(14) A $2(3x-1) = 6x - 2$ Infinitely many solutions

$6x - 2 = 6x - 2$

$-2 = -2$

(15) C $2(3x-1) = -6x - 2$ One Solution

$6x - 2 = -6x - 2$

$12x = 0$

$x = 0$