Math 9 LESSON 2 Name_____

Two-Step Algebra Equations

DEVELOP: **Solve each equation.**

1) $4+\frac{n}{5}=6$

2) $1+\frac{b}{2}=5$

3) $4+5m=24$

4) $3p-5=25$

5) $3r-4=2$

6) $2+\frac{n}{4}=3$

7) $4=\frac{x}{12}+3$

8) $8=6+\frac{a}{7}$

9) $31=7+8x$

10) $44=3r-4$

11) $44=5+3x$

12) $101=10b-9$

13) $-5 + 5n = 15$

14) $3 - 2v = 13$

15) $37 = -5n + 2$

16) $-3 + 3a = 27$

17) $-23 = 4x + 5$

18) $-19 = 5 - 4k$

19) $-4 = -7 + \frac{x}{3}$

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

21) $-10 = \frac{n}{2} - 3$

22) $5 = 7 + \frac{v}{-8}$

23) $\frac{a}{2} + 7 = 13$

24) $6 = 3 + \frac{x}{-4}$

Two-Step Solving ~ PROFICIENT

BOOKS NEVER WRITTEN

The Break-in by

10	−13	−7	−7	−25	8	72	6	5	−4

Origin of Man by

−1	−11	−2	72	17	−6	25	17	12

Making Soap by

−9	25	−13	72	−8	25	−2	12	−6

ABOVE ARE THE TITLES OF THREE "BOOKS NEVER WRITTEN."
TO DECODE THE NAMES OF THEIR AUTHORS:

Solve each equation below and find your solution in the code. Each time the solution appears, write the letter of that exercise above it.

(O) $4y - 9 = 15$

(A) $6x + 7 = -5$

(S) $-9t + 2 = 56$

(P) $-69 = 7v - 6$

(Y) $35 = -2x - 15$

(I) $4 - 3n = 43$

(N) $12 - 5u = -48$

(C) $-27 + 20w = 73$

(E) $13 = 5 - 8m$

(K) $11r + 60 = 16$

(U) $y - 24 = -7$

(J) $23 - x = 13$

(V) $-67 = 6x - 1$

(M) $-4e - 9 = 19$

(D) $-8 = 32 - 5q$

(H) $6 + 10k = 256$

(T) $-100 = 12t - 4$

(L) $36 - x = -36$

OBJECTIVE 4–g: To solve equations of the form $ax + b = c$, where a is an integer (solutions are integers).

What Problem Did the Dumb Gangster Have When the Boss Told Him to Blow Up a Car?

Solve each equation below. Find your solution in the set of answers under the exercise and notice the letter next to it. Write this letter in each box that contains the number of that exercise.

(1) $3n + 5 = 6$

(2) $4 + 5x = 1$

(3) $4y - 15 = -10$

(4) $3 - 4d = 13$

(5) $8 = 9x - 7$

(6) $-22 = 11 - 6a$

(7) $8t + 23 = 17$

(8) $50 - 3u = 75$

(9) $21 = -10m - 3$

(10) $13x + 5x = 3$

(11) $3x - 7 + 2x = 9$

(12) $4 - 2y - y = 12$

(13) $-15 = 6p + 15 - 10p$

(14) $-n + 5 + 21n = 0$

(15) $4e - 3e - 2e = 1 - 9$

Answers:

(A) $-2\frac{1}{2}$ (O) $\frac{1}{3}$

(D) $-\frac{3}{5}$ (U) $1\frac{2}{3}$

(F) $1\frac{7}{9}$ (I) $1\frac{1}{4}$

Answers:

(E) $-2\frac{2}{5}$ (G) $-1\frac{7}{10}$

(N) $-8\frac{1}{3}$ (T) $-\frac{3}{4}$

(L) $5\frac{1}{2}$ (B) $\frac{1}{6}$

Answers:

(S) $7\frac{1}{2}$ (R) $-2\frac{2}{3}$

(M) $-6\frac{3}{4}$ (X) $3\frac{1}{5}$

(P) 8 (H) $-\frac{1}{4}$

H	E	10	5	12	8	9	2	14	3	13	6	3	15	13	1	8	T	H	E	9	11	14	4	5	13	7	15	3	15	9

OBJECTIVE 4–h: To solve equations of the form $ax + b = c$, where a is an integer (solutions are not necessarily integers).

Name : _____ LESSON 2

EXTENDING

Two-Step Equations: Fractions

Sheet 1

Solve each equation.

1) $\frac{7}{6}d + \frac{4}{3} = -\frac{1}{3}$

2) $5\frac{1}{2} - u = \frac{9}{4}$

3) $-m - \frac{7}{8} = -10$

4) $\frac{2}{7} = \frac{4}{5} + 9q$

5) $2\frac{2}{5} = \frac{3}{8} + \frac{h}{\left(\frac{1}{3}\right)}$

6) $\frac{5}{9}c - \frac{3}{4} = \frac{7}{9}c$

7) $\frac{9}{4}\left(w - \frac{1}{9}\right) = \frac{7}{2}$

8) $\frac{y}{\left(\frac{5}{3}\right)} + 5 = 2\frac{5}{6}$

9) $-\frac{2}{3}p + \frac{8}{3} = -3p$

10) $-2\frac{1}{7}n - \frac{6}{7} = -1\frac{3}{7}$

Name : _____

Two-Step Equations: Decimals

Sheet 1

Solve each equation.

1) $0.4x + 2.9 = 1.5$

2) $\frac{v}{2.2} - 0.1 = 7.4$

3) $7 = \frac{a - 9.2}{3}$

4) $-1.3g + 1.9 = -11.1$

5) $-0.9p + 3.2 = -1.7p$

6) $-14.3 = -1.4 - 3d$

7) $14.2 = 2(-5.8 + t)$

8) $-10.6 = \frac{m + 11.7}{0.5}$

9) $\frac{k}{3.5} + 7.4 = 8$

10) $-5.1 - z = 6.5$