

1. Complete all the odd problems except #9 the word problem – **Show work on a separate paper**

Why Do Cowboys Have So Much Trouble With Math?

Solve each equation or problem and find your solution in the answer column. Write the letter of the answer in each box that contains the exercise number. If the answer has a ●, shade in the box instead of writing a letter in it.

① $8x + 15 = 3x - 20$

③ $18 - 5y = y + 4$

⑤ $11d = 81 - 16d$

⑦ $10b - 25 - 3b = 4b - 1$

⑨ The Sun Spa charges annual dues of \$125 plus \$10 per hour to use the facilities. The Moon Spa charges annual dues of \$230 plus \$7 per hour to use the facilities. For what number of hours would the two spas charge the same total amount?

⑩ $9(m - 2) = m + 40$

⑫ $5x + 2(11 - 4x) = 82 + x$

⑭ $7(7c + 1) - 4c = 13(3c - 2)$

⑯ $3q - 16q = 7 + 2(-8q - 3)$

⑱ Simon says: "Five times my age 4 years ago is the same as 3 times my age in 2 years." How old is Simon now?

② $9n - 2 = 7n + 50$

④ $-7a - 10 = 20 - 3a$

⑥ $-22 - x = 5 + 6x + 9$

⑧ $33 + 15w = 3w - w + 4w$

⑪ $3(2p + 7) = 15(p - 4)$

⑬ $16 - 5(3t - 4) = 8(-2t + 11)$

⑮ $12(5 + 2y) = 4y - (6 - 9y)$

⑰ $14 - 3(5t - 12) = 1 - (20t + 1)$

Answers 1-9

Ⓐ 8

Ⓘ $-7\frac{1}{2}$

Ⓚ 38

● $-5\frac{1}{7}$

Ⓞ -7

Ⓟ $-3\frac{2}{3}$

Ⓣ 3

ⓔ $2\frac{1}{3}$

Ⓤ 35

Ⓒ $-4\frac{1}{4}$

Ⓢ 26

Ⓝ 5

Answers 10-18

Ⓜ 18

Ⓛ $-5\frac{1}{2}$

Ⓝ 13

ⓖ 9

Ⓡ -10

Ⓟ $-7\frac{3}{4}$

● 52

Ⓦ $7\frac{1}{4}$

ⓕ 12

ⓗ $\frac{1}{3}$

Ⓨ -15

Ⓡ -6

5	16	3	12	6	7	14	10	7	12	2	13	17	1	15	18	9	6	5	16	4	18	11	2	13	15	8
---	----	---	----	---	---	----	----	---	----	---	----	----	---	----	----	---	---	---	----	---	----	----	---	----	----	---

2. Create an equation with **no solutions**

$$-3x + 7 = \underline{\hspace{2cm}}x + \underline{\hspace{2cm}}$$

$$4(x + 2) = \underline{\hspace{2cm}}x + \underline{\hspace{2cm}}$$

3. Create an equation with **infinite solutions**

$$-3x + 7 = \underline{\hspace{2cm}}x + \underline{\hspace{2cm}}$$

$$4(x + 2) = \underline{\hspace{2cm}}x + \underline{\hspace{2cm}}$$

4. Create an equation with **one solution**

$$-3x + 7 = \underline{\hspace{2cm}}x + \underline{\hspace{2cm}}$$

$$4(x + 2) = \underline{\hspace{2cm}}x + \underline{\hspace{2cm}}$$

Indicate if the following equations have **one solution**, **no solutions** or **infinite solutions**.

5. $-5(x + 2) = -5x + 10$ _____

6. $2x + 7 = 3x + 7$ _____

7. $2x + 3x + 6 = 5x + 6$ _____

8. $3(x - 6) = 3x - 18$ _____

9. $4(2x - 3) = 8x - 3$ _____