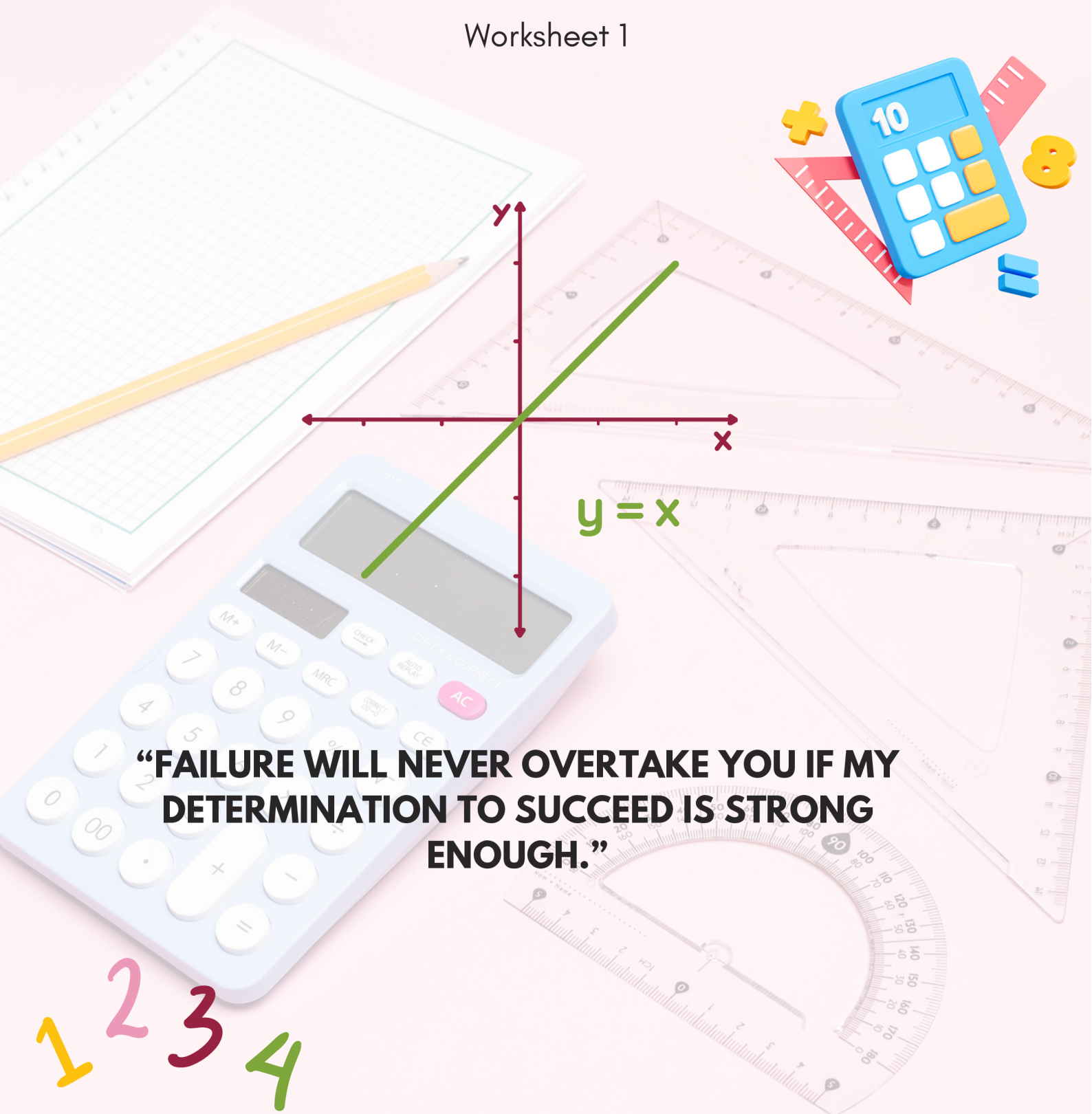# LINEAR EQUATIONS IN 2 VARIABLES

Worksheet 1

$y = x$

"FAILURE WILL NEVER OVERTAKE YOU IF MY DETERMINATION TO SUCCEED IS STRONG ENOUGH."

1. Which of the following is not a linear equation in two variables?

A. $px + qy + c = 0$ B. $ax^2 + bx + c = 0$ C. $3x + 2y = 5$ D. All the above

---

2. Two numbers are in the ratio 3:4. If five is subtracted from each, the resulting number are in the ratio 2:3. Then the smallest number is_____

A. 15   B. 20   C. 18   D. 24

---

3. If the point (3, 4) lies on the graph of the equation 3y = ax + 7, find the value of a.

A. $\frac{5}{3}$ B. $\frac{3}{5}$ C. $\frac{2}{5}$ D. $\frac{3}{4}$

---

4. 3-years ago, the sum of ages of a father and his son was 40 years. After 2-year, the sum of ages of the father and his son will be _____

A. 40   B. 46   C. 50   D. 56

---

5. Sum of the digits of two digit number is 9. The number obtained by interchanging the digit is 18 more than twice the original number. The original number is:

A. 72   B. 27   C. 36   D. 63

---

6. In the equation $3x + 2y = 13xy$ and $4x - 5y = 2xy$, the value of x and y are:

A. (2, 3)   B. (3, 2)   C. $(\frac{1}{2}),(\frac{1}{3})$ D. $(\frac{1}{3}),(\frac{1}{2})$

---

7. The sum of the present ages of father and his son is 60 years. 6 years ago, father's age was five times the age of his son. After six years son's age will be:

A. 20 years   B. 14 years   C. 12 years   D. 18 years

---

8. If $x + y = 7$ and $3x - 2y = 11$. Then the value of x will be:

A. 5   B. 6   C. 7   D. 8

---

9. A fraction becomes $\frac{1}{3}$,if 2 is added to both numerator and denominator. If 3 is added to both numerator and denominator it becomes $\frac{2}{5}$. find the fraction

A. $\frac{1}{3}$ B. $\frac{1}{7}$ C. $\frac{1}{9}$ D. $\frac{4}{5}$

---

10. If $\frac{4x - 3y}{7x - 6y} = \frac{4}{13}$, find $\frac{x}{y}$

A. $\frac{1}{8}$ B. $\frac{3}{8}$ C. $\frac{5}{8}$ D. $\frac{7}{8}$

Scroll down for Answer Key

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Answer Key

1. B
2. A
3. A
4. C
5. B
6. C
7. B
8. A
9. B
10. C