THE TEZ EXAMINATION BOARD
SET TWO ON ALGEBRA

1. SOLVING EQUATIONS BY SUBRACTING

1.	Solve: x + 5 = 13	5.	Solve: x + 3 = 8
2.	Solve: 8 = y + 5	6.	Solve: X + 6 = 10
3.	Solve: 2 + y = 10	7.	Solve: 3 – y = 10
4.	Solve: Solve: +8 – p = 5	8.	Solve: 8 + m = 12

2. SOLVING EQUATIONS BY ADDING THE SAME NUMBERS ON BOTH SIDES

1.	Solve: x – 3 = 15	4.	Solve: y – 3 = 7
2.	Solve: k – 9 = 8	5.	Solve: 3 = x - 6
3.	Solve: - 4 + y = 5	6.	Solve: 6 = - 8 + b

7.	Solve:12 = -7 + p	8.	Solve: 4 – q – 6 = 12

3. SOLVING EQUATIONS BY DIVIDING BOTH SIDES BY THE SAME NUMBER

1.	Solve: 5x = 25	5.	Solve: 3x + 2x = 140
2.	Solve for t: 32 = 8t	6.	Solve: 3 = -y + 1
3.	Solve: -p = 10	7.	Solve: 6 – y = 3
4.	Solve: -15y = -45	8.	96 = 8y – 2y

4. SOLVING EQUATIONS BY MULTIPLYING BOTH SIDES BY THE SAME NUMBER

1.	Solve: $\frac{a}{4} = 6$	6.	Solve: $\frac{1}{2}$ y = 9
2.	Solve: $8 = \frac{y}{2}$	7.	Solve: $\frac{2}{3}$ m = 4

3	Solve: $\frac{m}{3} = 4$	8.	Solve: $1\frac{1}{2}$ m = 12
4.	Solve: $\frac{x}{3} = 2$	9.	Solve: $\frac{2}{5}$ p = 10
5.	Solve: $\frac{x}{5} = -5$	10.	Solve: $\frac{1}{4}$ p = 5

5. SOLVING EQUATIONS WITH SQUARES

1.	Solve: $a^2 = 4$	6.	Solve: $y^2 + 5 = 9$
2.	Solve: $2x^2 = 32$	7.	Solve: $x^2 - 3 = 33$
3.	Solve: $x^2 + 1 = 10$	8.	Solve: $P^2 + 4 = 20$

4.	Solve: $9x^2 = 16$	9.	Solve: $q^2 - 7 = 18$
5.	Solve: $4(y^2 – 1) = 21$	10.	Solve: $6(x^2 + 2) = 306$

6. MORE ON SOLVING EQUATIONS

1.	Solve: $2x + 6 = 18$	5.	Solve: $2p + 4 = 20$
2.	Solve: $30 – 8 = 7$	6.	Solve: $3x + 5 = 14$
3.	Solve: $3 – 3x = 12$	7.	Solve: $4y + 2 = 16$
4.	Solve: $10 – 4x = x$	8.	Solve: $3m – 2 – 2m = 1$

7. SOLVING EQUATIONS INVOLVING REMOVAL OF BRACKETS

- ✓ **When removing brackets, multiply every term inside the brackets by the factor outside the brackets.**
- ✓ **A positive sign before the brackets does not change any sign inside the brackets.**
- ✓ **A negative sign before the brackets changes every sign inside the brackets**.

1.	Solve: +2(2m + 4)	7.	Solve: 2(m + 3) = 18
2.	Solve: +2(2m – 4)	8.	Solve: 4(x – 3) = 16
3.	Solve: -2(2m + 4)	9.	Solve: 6x – 9(x – 2) = 3
4.	Solve: -2(-2m – 4)	10.	Solve: 5(m + 4) = 30
5.	Solve: 3(m + 2) =21	11.	Solve: 6(m + 4) = 0
6.	Solve: 5t – 2(t + 1) = 1	12.	Solve: 3x – (x + 3) = 3

8. MORE ABOUT SOLVING EQUATIONS INVOLVING REMOVAL OF BRACKETS

1.	Solve for x: $2(3x – 1) – 4(x – 1) = 4$	5.	Solve: $2(3a – 5) – 3(1 – a) = 14$
2.	Solve: $3(2x + 1) – (x + 4) = 35$	6.	Solve: $4(3x – 5) – 2(6 + x) = -12$
3.	Solve: $(y – 2)\ 5 – 2(y – 2) = 3$	7.	Solve: $5(3y + 2) – 4(y – 3) = 0$
4.	Solve: $2(2y – 3) – (y + 9) = 0$	8.	Solve: $2(x + 1) – 3(2x – 1) = -3$

9.	Solve: 3(2x + 1) + 4(x + 3) = 35	10.	Solve: 3(p + 2) + 2(2p + 4) = 21

9. SOLVING EQUATIONS WITH UNKNOWN ON BOTH BRACKETS

1.	Solve: 2m + 4 = m + 6	5.	Solve: 2(2p – 10) = 2(p + 4)
2.	Solve: 3p – 6 = 18 + p	6.	Solve: 2n + 12 = 6n - 20
3.	Solve: 7x + 4 = 3x + 20	7.	Solve: 3x + 7 = x + 9
4.	Solve: 3a – 5 = a + 19	8.	Solve: 18m – 13 = 13m - 3

9.	Solve: 5a – 3 = 2a + 3	13.	Solve: 3(p – 4) – 2(3p -1) = 2p - 15
10.	Solve: 10t – 12 = 9t – 2	14.	Solve: 11 – (t + 4) = 2t - 5
11.	Solve: 3(2x – 2) = 2(x – 9)	15.	Solve: 3(a – 2) = 2(a – 1)
12.	Solve: 4(5x – 3) = 2(5x + 9))	16.	Solve: 3(6y – 14) = 4(4y + 8)

10. SOLVING EQUATIONS INVOLVING FRACTIONS

- ✓ Note 1: Find the LCM of the denominators
- ✓ Note 2: Identify the number of terms
- ✓ Note 3: Multiply each term by the LCM

1.	Solve: $\frac{2x}{3} = 4$	5.	Solve: $2x - 5 - \frac{4x}{5} = 12$
2.	Solve: $4\frac{1}{3}p + 2 = 15$	6.	Solve: $5x + 5 - \frac{2x}{3} = 18$
3.	Solve: $p - \frac{2}{3}p = 7$	7.	Solve: $3y - 7 + \frac{3y}{4} y = 23$
4.	Solve: $\frac{2}{3}y - 4 = \frac{1}{2}y + 6$	8.	Solve: $\frac{2p}{3} - p = 5$

11. SOLVING EQUATIONS WITH DECIMALS

1.	Solve: 0.4p + 0.5 = 2.1	5	Solve: 0.4p – 0.6 = 4.2
2.	Solve: 1.6p – 2 = 1.2	6.	Solve: 0.3(5x + 6) = 0.9(x + 4)
3.	Solve: 0.5t + 0.4t = 3.6	7.	Solve: 0.3t + 5 = 0.5t + 3
4.	Solve: 0.9p + 0.3 = 5.7	8.	Solve: 0.4x + 0.5 – 0.2x = 8.1

MORE ON SOLVING EQUATIONS INVOLVING FRACTIONS

1.	Solve: $\frac{m+2}{3} + \frac{m}{4} = 3$	5.	Solve: $\frac{4m-3}{5} - \frac{2m+2}{4} = 1$
2.	Solve: $\frac{5p}{2} - \frac{b-1}{3} = 9$	6.	Solve: $\frac{y}{2} + \frac{y-1}{5} = 4$
3.	Solve: $\frac{y+3}{2} + 4 = 6$	7.	Solve: $\frac{x}{4} + \frac{x+2}{3} = 3$
4.	Solve: $\frac{y+2}{2} + \frac{y}{3} = 6$	8.	Solve: $\frac{2x}{3} + \frac{x-1}{2} = 3$

9.	Solve: $\frac{x}{2} + \frac{x+2}{3} = 4$	11.	Solve: $\frac{3x+1}{4} = \frac{x+2}{2}$
10.	Solve: $\frac{3}{4}(x+2) - \frac{1}{4}(2x+4) = 3$	12.	Solve: $\frac{3y-1}{2} = \frac{7y+1}{6}$