Factor the polynomial completely by GROUPING. Show ALL of your work

1) $xy + 8x - 4y - 32$

1) _____

2) $15a^3 - 18a^2b - 10ab^2 + 12b^3$

2) _____

Factor the polynomial completely. Show ALL of your work.

3) $x^2 - 3x - 10$

3) _____

4) $6x^2 - 17x + 12$

4) _____

5) $14z^2 - 49z - 28$

5) _____

6) $75x^2y - 147y$

6) _____

7) $128x^3 + 54$

7) _____

8) $x^2y - 6x^2 - 16y + 96$

8) _____

Solve the equation by factoring. Show ALL of your work.

9) $x^2 + 2x = 24$

9) _____

10) $2x^3 + 5x^2 = 18x + 45$

10) _____

BONUS

Factor the polynomial completely. Show ALL of your work

11) $56x^3 - 427x^2 + 245x$

11) _____