# 8.1 Intro to Factoring Activity

Date_____ Algebra____

**You will need to watch 4 videos for this activity. Watch video 1, then complete part 1 of the worksheet, etc. You must take notes over each video!**

1) What does factoring mean?

**Type 1: Factor the common factor out of each expression.**

2) $6x^4 - 2x^3 - 8x$

3) $-42n^6 - 49n^2 - 56n$

4) $7k + 2 + 7k^2$

5) $-2x^3 - x^2 + 5x$

6) $40b^4 - 35b^5 - 25b^8$

7) $25x^2y^5 - 5x^2y^2 + 10xy^2$

**Type 2: Factor each quadratic trinomial using the diamond method.**

8) $n^2 + 13n + 36$

9) $x^2 + 6x - 16$

10) $n^2 - 4n - 24$

11) $n^2 + 10n + 9$

12) $x^2 - 5x + 4$

13) $k^2 - 10k + 25$

**Type 3: Factor each DOTS problem:**

14) $v^2 - 25$

15) $49p^2 - 16$

16) $25x^2 - 1$

17) $x^2 - 1$

18) $4r^2 - 9$

19) $36r^2 - 49$

**Type 4:Factor each of these quadratic trinomials using the ACGC method:**

20) $5n^2 + 49n + 72$

21) $3r^2 - 28r + 60$

22) $3p^2 + 16p + 21$

23) $5v^2 + 8v - 21$

24) $3n^2 + 7n + 4$

25) $21r^3 + 3r$

**For each of the following, identify which TYPE of factoring you would need to do. You do not need to factor, just identify the type: GCF, DIAMOND, DOTS or ACGC.**

26) $3x^2 - 23x - 36$

27) $n^2 - 5n + 4$

28) $30n^5 - 42n^3 - 12n^2 - 60$

29) $9m^2 - 16$

30) $20x^6 + 30x^2 - 100x + 20$

31) $7b^2 - 23b + 6$

32) $x^2 + 13x + 30$

33) $4m^2 - 25$

34) $-28 + 7v$

35) $4n^2 - 1$

**Challenge: Try to factor these tricky polys:**

36) $6k^2 + 42k + 36$

37) $4x^8 - 25x^2$