8.0 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) VIDEO NOTES:

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

4) $-42n^6 - 49n^2 - 56n$

5) $7k + 2 + 7k^2$

6) $-2x^3 - x^2 + 5x$

7) $40b^4 - 35b^5 - 25b^8$

8) $25x^2y^5 - 5x^2y^2 + 10xy^2$

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

9) VIDEO NOTES:

10) $x^2 - 7x - 18$

11) $b^2 - 2b - 48$

12) $a^2 + 10a + 9$

13) $p^2 + 2p - 24$

14) $r^2 + 3r - 18$

15) $p^2 + 12p + 32$

16) $r^2 - 10r + 16$

17) $x^2 - 16x + 63$

Type 3: Factor each DOTS problem:

18) VIDEO NOTES:

19) $v^2 - 25$

20) $49p^2 - 16$

21) $25x^2 - 1$

22) $x^2 - 1$

23) $4r^2 - 9$

24) $36r^2 - 49$

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

25) VIDEO NOTES:

26) $5n^2 + 49n + 72$

27) $3r^2 - 28r + 60$

28) $3p^2 + 16p + 21$

29) $5v^2 + 8v - 21$

30) $3n^2 + 7n + 4$

31) $21r^3 + 3r$

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.

32) $3x^2 - 23x - 36$

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

34) $30n^5 - 42n^3 - 12n^2 - 60$

35) $9m^2 - 16$

36) $20x^6 + 30x^2 - 100x + 20$

37) $7b^2 - 23b + 6$

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

39) $4m^2 - 25$

40) $-28 + 7v$

41) $4n^2 - 1$

Challenge: Try to factor these tricky polys:

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

43) $4x^8 - 25x^2$