

Today's Plan:

Learning Target (standard): I will review for the semester exam.

Students will: Complete practice problems over previous concepts at the boards and study for my exam.

Teacher will: Provide practice problems over previous concepts, check homework problems for accuracy and provide students feedback, describe and provide examples of exam problems.

Assessment: Board work

Differentiation: Students will work at the board, actively engage in practice review concepts with the aid of other students and the teacher.

Factor each completely.

36) $24m^2 - 90mn - 150n^2$

$$6(4m^2 - 15mn - 25n^2)$$

$$6(4m + 5n)(m - 5n)$$

37) $-60x^2 - 234xy + 162y^2$

$$-6(10x^2 + 39xy - 27y^2)$$

$$-6(5x - 3y)(2x + 9y)$$

38) $27u^2 + 21uv - 6v^2$

$$3(9u^2 + 7uv - 2v^2)$$

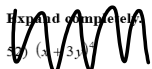
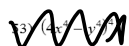
$$3(9u - 2v)(u + v)$$

39) $40m^3 - 280m^2n$

$$40m^2(m - 7n)$$

40) $20m^4 - 39m^2 + 7$ $(5m^2 - 1)(4m^2 - 7)$	41) $12m^4 - 86m^2 + 144$ $2(6m^4 - 43m^2 + 72)$ $2(3m^2 - 8)(2m^2 - 9)$
42) $96xy + 32xa - 36ay - 12a^2$ $32x(3y+a) - 12a(3y+a)$ $(3y+a)(32x-12a)$ $4(3y+a)(8x-3a)$	43) $18mn - 72m - 42n + 168r$ $18m(n-4) - 42r(n-4)$ $(n-4)(18m-42r)$ $6(n-4)(3m-7r)$
44) $63pc + 42pd^2 + 45qc + 30qd^2$ $21p(3c+2d^2) + 15q(3c+2d^2)$ $(3c+2d^2)(21p+15q)$ $3(3c+2d^2)(7p+5q)$	45) $90xy + 144xm^2 + 75my + 120m^3$ $18x(5y+8m^2) + 15m(5y+8m^2)$ $(5y+8m^2)(18x+15m)$ $3(5y+8m^2)(6x+5m)$
46) $18u^2 - 2v^2$ $2(9u^2 - v^2)$ $2(3u+v)(3u-v)$	47) $2x^2 - 8y^2$ $2(x^2 - 4y^2)$ $2(x+2y)(x-2y)$
48) $20u^2 + 20uv + 5v^2$ $5(4u^2 + 4uv + v^2)$ $5(2u+v)(2u+v)$ $5(2u+v)^2$	49) $45x^2 + 120xy + 80y^2$ $5(9x^2 + 24xy + 16y^2)$ $5(3x+4y)(3x+4y)$ $5(3x+4y)^2$

-10-

50) $648u^3 - 3$ $3(216u^3 - 1)$ $3(6u-1)(36u^2+6u+1)$	51) $81x^3 - 3$ $3(27x^3 - 1)$ $3(3x-1)(9x^2+3x+1)$
Expand completely. 52) $(x+3y)^2$ 	53) $(4x-y)^2$ 
Divide.	
54) $(5n^5 - 29n^4 + 18n^3 + 20n^2 - 54n + 25) \div (n-5)$	
$\begin{array}{r} 5 \overline{) 5 \ -29 \ 18 \ 20 \ -54 \ 25} \\ \underline{5 } \\ \\ \underline{25} \\ \\ \underline{20} \\ \\ \underline{-54} \\ \\ \underline{25} \\ \end{array}$	
$5n^4 - 4n^3 - 2n^2 + 10n - 4 + \frac{5}{n-5}$	
55) $(3k^5 + 19k^4 - 35k^3 + 41k^2 - 27k - 2) \div (3k - 2)$	

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