

Topic: Polynomials Factoring using Sum/Product and Difference of Squares**Level 3**

Watch (and take notes) the lecture called [Factoring using Difference of Squares](#).

1. Factor each polynomial. (*Choose 6 to complete. Do the rest for more practice*).

a. $9x^2 - 1$

e. $196n^2 - 144$

i. $x^2 - 9y^2$

b. $4n^2 - 49$

f. $a^2 - 25b^2$

j. $49x^2 - 25y^2$

c. $36k^2 - 1$

g. $4x^2 + 49y^2$

k. $9x^2 - 16y^2$

d. $p^2 - 36$

h. $25x^2 + 16y^2$

l. $36a^4 - 25b^4$



Watch (and take notes) the lecture called [Factoring using Sum/Product](#).

2. Factor each polynomial. (*Choose 10 to complete. Do the rest for more practice*).

a. $b^2 + 8b + 7$

g. $m^2 + 2m - 24$

m. $b^2 - 6b + 8$

b. $n^2 - 11n + 10$

h. $x^2 - 4x + 24$

n. $n^2 + 6n + 8$

c. $m^2 + m - 90$

i. $k^2 - 13k + 40$

o. $a^2 - a - 90$

d. $n^2 + 4n - 12$

j. $a^2 + 11a + 18$

p. $p^2 + 11p + 10$

e. $n^2 - 10n + 9$

k. $n^2 - n - 56$

q. $x^2 - 15x + 50$

f. $b^2 + 16b + 64$

l. $n^2 - 5n + 6$

r. $v^2 - 7v + 10$



Watch (and take notes) the lecture called [Factoring Multistep Polynomials](#).

3. Factor each polynomial. (*Choose 10 to complete. Do the rest for more practice.*)

a. $2x^2 - 18$

i. $125m^4 - 20n^4$

q. $64x^6 - y^6$

b. $180m^2 - 5$

j. $2x^4r - 72y^4r$

r. $5x^6 + 20y^4$

c. $294r^2 - 150$

k. $216x^4ay - 6y^5a$

s. $2n^2 + 6n - 108$

d. $150k^2 - 216$

l. $4x^4 - 144y^4$

t. $5n^2 + 10n + 20$

e. $3n^2 - 75$

m. $4x^4m - 36y^4m$

u. $2k^2 + 22k + 60$

f. $24x^3 - 54x$

n. $7x^4 - 28y^4$

v. $5x^3 - 30x^2 + 40x$

g. $6a^2 + 96b^2$

o. $7x^4 - 343y^4$

w. $2p^3 + 2p^2 - 4p$

h. $54v^2 - 6u^2$

p. $16m^6 - n^6$

x. $4v^3 - 4v^2 - 8v$