

Honors Math 3
Simplifying Polynomials

Simplify.

1. $2m - (-m^2 - 5m)$

2. $(x^3 + 3x^2) - (-x^2 + x)$

3. $(\frac{3}{4}m^2 + \frac{2}{3}m + \frac{1}{9}) - (\frac{1}{8}m^2 + \frac{1}{3}m + \frac{4}{9})$

4. $\frac{2}{3}c^2(3c - \frac{9}{5}c^2 - 7)$

5. $5m^3(3m^2 - 4m)$

6. $\frac{8r}{3} \left(9r^3 - \frac{3r^2}{2} + \frac{5}{8} \right)$

7. $(7x^2 - 3)(2x - 4)$

8. $(c^5 + 9)(3c^5 + 4)$

9. $(11 - x^6)^2$

10. $(10a^2 + 3)(10a^2 - 3)$

11. $(k^2 - 4k + 6)(3k - 5)$

12. $(3h^2 - 1)^2(2 - h)$

13. $(2u + 7)^2$

14. $(4a + b)^2$

15. $(n + 8p)^2$

16. $x^a(x^a - x)$

17. $y^x(y^{2x} + y^2)$

18. $m^{3p}(m^p - m^3 + 3)$

19. $y^{m-1}(y^{2m} + y^2 - y)$

20. $a^{n-2}(a^{n+2} + a^{2n} + a^2)$

1.

Answer: $m^2 + 7m$

CodePath: EAS.ALG.E.B.12

2.

Answer: $x^3 + 4x^2 - x$

CodePath: EAS.ALG.E.B.35

3.

Answer: $\frac{5}{8}m^2 + \frac{1}{3}m - \frac{1}{3}$

CodePath: EAS.TRI.A.B.10

4.

Answer: $2c^3 - \frac{6}{5}c^4 - \frac{14}{3}c^2$

CodePath: EAS.TRI.A.B.21

5.

Answer: $15m^5 - 20m^4$

CodePath: EAS.ALG.E.C.13

6.

Answer: $24r^4 - 4r^3 + \frac{5r}{3}$

CodePath: EAS.ALG.E.C.114

7.

Answer: $14x^3 - 28x^2 - 6x + 12$

CodePath: EAS.TRI.A.B.25

8.

Answer: $3c^{10} + 31c^5 + 36$

CodePath: EAS.TRI.A.B.27

9.

Answer: $121 - 22x^6 + x^{12}$

CodePath: EAS.TRI.A.B.51

10.

Answer: $100a^4 - 9$

CodePath: EAS.TRI.A.B.61

11.

Answer: $3k^3 - 17k^2 + 38k - 30$

CodePath: EAS.TRI.A.B.69

12.

Answer: $-9h^5 + 18h^4 + 6h^3 - 12h^2 - h + 2$

CodePath: EAS.TRI.A.B.83

13.

Answer: $4u^2 + 28u + 49$

CodePath: EAS.ALG.E.E.43

14.

Answer: $16a^2 + 8ab + b^2$

CodePath: EAS.ALG.E.E.49

15.

Answer: $n^2 + 16np + 64p^2$

CodePath: EAS.ALG.E.E.52

16.

Answer: $x^{2a} - x^{a+1}$

CodePath: EAS.ALG.E.C.129

17.

Answer: $y^{3x} + y^{x+2}$

CodePath: EAS.ALG.E.C.130

18.

Answer: $m^{4p} - m^{3p-3} + 3m^{3p}$

CodePath: EAS.ALG.E.C.132

19.

Answer: $y^{3m-1} + y^{m+1} - y^m$

CodePath: EAS.ALG.E.C.133

20.

Answer: $a^{2n} + a^{3n-2} + a^n$

CodePath: EAS.ALG.E.C.134