

Honors Summer Assignment

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Date _____ Period _____

Evaluate each expression.

1) $3(4 + 6)$

2) $(2 - 1) \times 2$

3) $(5 + 2 - 5) \times 6$

4) $(3 + 3 + 4) \times 3$

Simplify each expression.

5) $\frac{3}{8}n + \frac{11}{8}n$

6) $\frac{11}{6}x - \frac{13}{8}x$

7) $-\frac{13}{7}\left(-\frac{8}{3}b + 1\right)$

8) $v + \frac{32}{7}\left(v - \frac{39}{10}\right)$

Solve each equation.

9) $5r + 3 + r = -15$

10) $6 = 3x - x$

11) $-90 = -3(4n + 8) + n$

12) $-204 = -6(6 - 7b)$

13) $-7(-4 + v) - 3(7v + 7) = 63$

14) $-2(-3 - 4x) + 3(2x + 8) = 44$

15) $-15 + n = 1 - 7n$

16) $m - 8 = -4m + 12$

Factor each completely.

17) $b^2 + 7b$

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

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

20) $v^2 + 13v + 36$

21) $v^2 - 8v - 20$

22) $n^2 + 4n - 32$

23) $5k^2 + 6k$

24) $5v^2 - 33v + 40$

25) $7x^2 + 58x + 63$

26) $2x^2 + 3x$

27) $7x^2 - 61x + 40$

28) $10m^2 - 25m - 15$

29) $3v^2 + 25v - 18$

30) $4p^2 - 14p - 60$

Simplify each sum.

31) $(5b^4 + 2b^2 + 5b) + (5b + 6b^4 - 5b^2)$

32) $(4n - n^3 + 7) + (6n^3 + 7n + 6)$

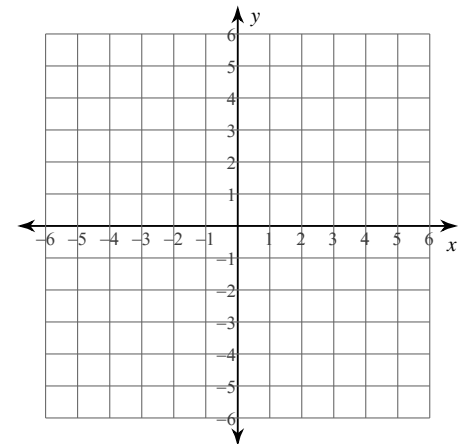
Simplify each difference.

33) $(2x^4 - 5x^3 + 8x) - (5x^4 + 6x^2 - 3x)$

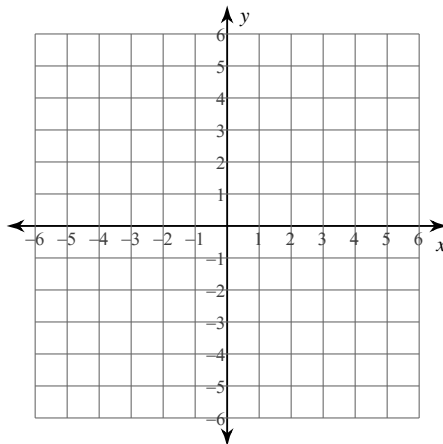
34) $(7x^4 - 6 + x) - (3x^4 - 5x + 6)$

Sketch the graph of each line.

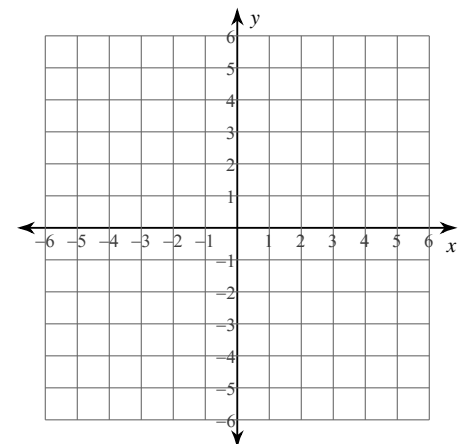
35) $y = \frac{1}{3}x - 2$



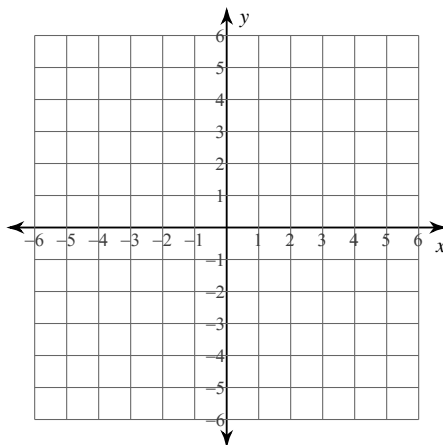
36) $y = \frac{1}{3}x + 5$



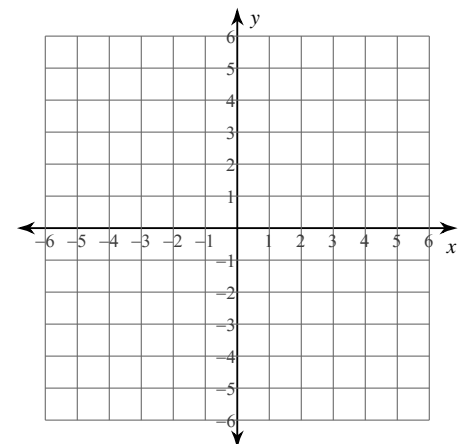
37) $y = -x - 1$



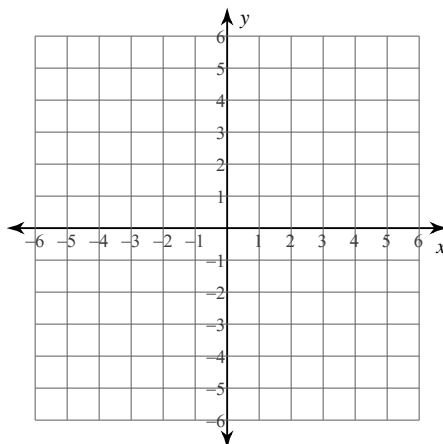
38) $y = -\frac{1}{4}x - 3$



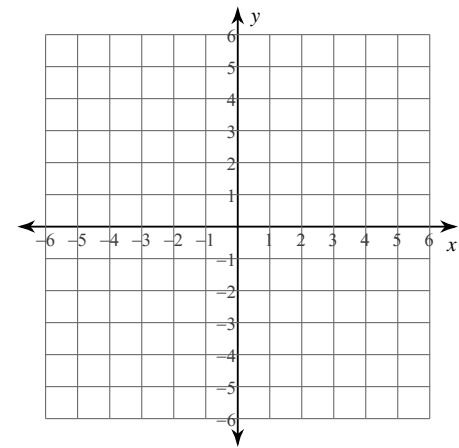
39) $x - 5y = -10$



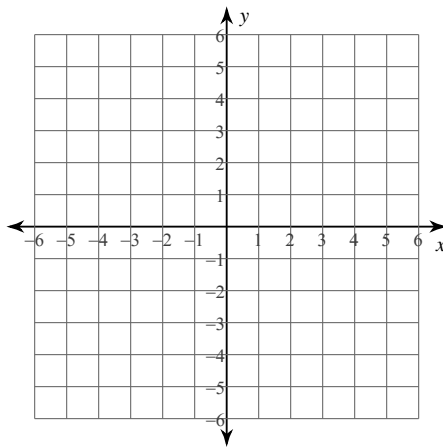
40) $2x + 3y = 9$



41) $6x - 5y = 20$



42) $3x - 2y = -10$



Find each product.

43) $7x^2(6x - 1)$

44) $6(5n - 3)$

45) $(4m + 8)(6m - 8)$

46) $(3n + 7)(5n - 7)$

47) $(3x - 7)(7x + 1)$

48) $(7r + 5)(4r + 5)$

49) $(6b - 4)(7b^2 - 7b - 1)$

50) $(8v + 1)(6v^2 - 5v - 8)$