

Name: \_\_\_\_\_ Class Period: \_\_\_\_\_ Date: \_\_\_\_\_

Who wrote, "Anyone who cannot cope with mathematics is not fully human. At best he is a tolerable subhuman who has learned to wear shoes, bathe, and not make messes in the house?"  
 any method

Use FOIL to multiply each binomial. Find the answer in the box. Put the letter next to the answer in the spot for the question below. Staple scratch work to this sheet.

1.  $(x + 9)(x + 4)$

$$\begin{array}{r} x+9 \\ x \quad | \quad x^2+9x \\ +4 \quad | \quad 4x+36 \\ \hline \end{array}$$

$$x^2 + 13x + 36$$

2.  $(x - 2)(x + 6)$

$$\begin{array}{r} x-2 \\ x \quad | \quad x^2-2x \\ +6 \quad | \quad 6x-12 \\ \hline \end{array}$$

$$x^2 + 4x - 12$$

3.  $(x + 7)(x - 3)$

$$\begin{array}{r} x+7 \\ x \quad | \quad x^2+7x \\ -3 \quad | \quad -3x-21 \\ \hline \end{array}$$

$$x^2 + 4x - 21$$

4.  $(x - 5)(x - 8)$

$$\begin{array}{r} x-5 \\ x \quad | \quad x^2-5x \\ -8 \quad | \quad -8x+40 \\ \hline \end{array}$$

$$x^2 - 13x + 40$$

5.  $(x - 1)(x + 1)$

$$\begin{array}{r} x-1 \\ x \quad | \quad x^2-x \\ +1 \quad | \quad 1x-1 \\ \hline \end{array}$$

$$x^2 - 1$$

6.  $(3x - 7)(5x + 5)$

$$15x^2 + 15x - 35x - 35$$

$$15x^2 - 20x - 35$$

7.  $(4x - 9)(7x - 1)$

$$28x^2 - 4x - 63x + 9$$

$$28x^2 - 67x + 9$$

8.  $(8x + 2)(9x - 3)$

$$72x^2 - 24x + 18x - 6$$

$$72x^2 - 6x - 6$$

9.  $(2x + 11)(x + 3)$

$$2x^2 + 6x + 11x + 33$$

$$2x^2 + 17x + 33$$

10.  $(-6x - 6)(x + 4)$

$$-6x^2 - 24x - 6x - 24$$

$$-6x^2 - 30x - 24$$

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

$$\begin{array}{r} x^2+6 \\ 6x^2 \quad | \quad 6x^4+36x^2 \\ -6 \quad | \quad -6x^2-36 \\ \hline \end{array}$$

$$6x^4 + 30x^2 - 36$$

12.  $(3x - 21y)(4x + 3y)$

$$12x^2 + 9xy - 84xy - 63y^2$$

$$12x^2 - 75xy - 63y^2$$

13.  $(4x - 9)(4x + 9)$

$$\begin{array}{r} 4x-9 \\ 4x \quad | \quad 16x^2-36x \\ +9 \quad | \quad 36x-81 \\ \hline \end{array}$$

$$16x^2 - 81$$

14.  $(3x^2 - 9)(2x^2 + 4)$

$$6x^4 + 12x^2 - 18x^2 - 36$$

$$6x^4 - 6x^2 - 36$$

15.  $(6x + 7y)(2x - 9y)$

$$\begin{array}{r} 6x+7y \\ 2x \quad | \quad 12x^2+14xy \\ -9y \quad | \quad -54xy-63y^2 \\ \hline \end{array}$$

$$12x^2 - 40xy - 63y^2$$



1907-1988

American Science Fiction  
 Writer

O:  $x^2 - 13x + 40$  (4)

N:  $x^2 - 1$  (5)

R:  $x^2 + 4x - 21$  (3)

N:  $x^2 + 4x - 12$  (2)

I:  $x^2 + 13x + 36$  (1)

I:  $-6x^2 - 30x - 24$  (10)

E:  $2x^2 + 17x + 33$  (9)

B:  $12x^2 - 40xy - 63y^2$  (15)

E:  $12x^2 - 75xy - 63y^2$  (12)

T:  $15x^2 - 20x - 35$  (6)

H:  $16x^2 - 81$  (13)

E:  $28x^2 - 67x + 9$  (7)

L:  $72x^2 - 6x - 6$  (8)

R:  $6x^4 - 6x^2 - 36$  (14)

A:  $6x^4 + 30x^2 - 36$  (11)

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14 4 15 9 3 6 11 13 7 1 5 8 12 10 2

For help with this worksheet go to [Mathops.com](http://Mathops.com) Section 14 Lesson 4.

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