

# Worksheet

02/02/2020

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Problem quickname: 7596

1)

Fill in the blank cells with the correct terms, as shown in the example.  $a$  and  $b$  stand for  $a$  and  $b$  in  $(a + b)^2$  or  $(a - b)^2$ . Hint: All numbers are positive.

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formula	$a$	$b$	$a^2$	$b^2$	$2ab$	expanded form
$(s + r)^2$	$s$	$r$	$s^2$	$r^2$	$2sr=2rs$	$r^2+2rs+s^2$
$(r - 4)^2$	$r$	4	$r^2$	16	$2r4=8r$	$r^2-8r+16$
$(10 + x)^2$	10	$x$	100	$x^2$	$2 \cdot 10x=20x$	$x^2+20x+100$
$(r - 6)^2$	$r$	6	$r^2$	36	$2r6=12r$	$r^2-12r+36$
$(r - s)^2$	$r$	$s$	$r^2$	$s^2$	$2rs=2rs$	$r^2-2rs+s^2$
$(y - x)^2$	$y$	$x$	$y^2$	$x^2$	$2yx=2xy$	$x^2-2xy+y^2$
$(14 + r)^2$	14	$r$	196	$r^2$	$2 \cdot 14r=28r$	$r^2+28r+196$
$(r - 7)^2$	$r$	7	$r^2$	49	$2r7=14r$	$r^2-14r+49$
$(3 - r)^2$	3	$r$	9	$r^2$	$2 \cdot 3r=6r$	$r^2-6r+9$
$(s - r)^2$	$s$	$r$	$s^2$	$r^2$	$2sr=2rs$	$r^2-2rs+s^2$

2)

Fill in the blank cells with the correct terms, as shown in the example.  $a$  and  $b$  stand

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for  $a$  and  $b$  in  $(a + b)(a - b)$ . Hint: All numbers are positive.

formula	$a$	$b$	$a^2$	$b^2$	expanded form
$(7r + 5s)(7r - 5s)$	$7r$	$5s$	$49r^2$	$25s^2$	$49r^2 - 25s^2$
$(9r + 5s)(9r - 5s)$	$9r$	$5s$	$81r^2$	$25s^2$	$81r^2 - 25s^2$
$(10r + 9s)(10r - 9s)$	$10r$	$9s$	$100r^2$	$81s^2$	$100r^2 - 81s^2$
$(6s + 5r)(6s - 5r)$	$6s$	$5r$	$36s^2$	$25r^2$	$36s^2 - 25r^2$
$(7r + 3s)(7r - 3s)$	$7r$	$3s$	$49r^2$	$9s^2$	$49r^2 - 9s^2$
$(4y + 9x)(4y - 9x)$	$4y$	$9x$	$16y^2$	$81x^2$	$16y^2 - 81x^2$
$(3r + 4s)(3r - 4s)$	$3r$	$4s$	$9r^2$	$16s^2$	$9r^2 - 16s^2$
$(9r + 8s)(9r - 8s)$	$9r$	$8s$	$81r^2$	$64s^2$	$81r^2 - 64s^2$
$(2y + 5x)(2y - 5x)$	$2y$	$5x$	$4y^2$	$25x^2$	$4y^2 - 25x^2$
$(6s + 8r)(6s - 8r)$	$6s$	$8r$	$36s^2$	$64r^2$	$36s^2 - 64r^2$

3)

Fill in the blank cells with the correct terms, as shown in the example.  $a$  and  $b$  stand for  $a$  and  $b$  in  $(a + b)(a - b)$ .

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formula	$a$	$b$	$a^2$	$b^2$	expanded form
$(r + s)(r - s)$	$r$	$s$	$r^2$	$s^2$	$r^2 - s^2$
$(20 + r)(20 - r)$	20	$r$	400	$r^2$	$400 - r^2$
$(x + y)(x - y)$	$x$	$y$	$x^2$	$y^2$	$x^2 - y^2$
$(r + 9)(r - 9)$	$r$	9	$r^2$	81	$r^2 - 81$
$(s + r)(s - r)$	$s$	$r$	$s^2$	$r^2$	$s^2 - r^2$
$(19 + r)(19 - r)$	19	$r$	361	$r^2$	$361 - r^2$
$(x + 3)(x - 3)$	$x$	3	$x^2$	9	$x^2 - 9$
$(r + 15)(r - 15)$	$r$	15	$r^2$	225	$r^2 - 225$
$(9 + x)(9 - x)$	9	$x$	81	$x^2$	$81 - x^2$
$(x + 15)(x - 15)$	$x$	15	$x^2$	225	$x^2 - 225$

4)

Fill in the blank cells with the correct terms, as shown in the example.  $a$  and  $b$  stand

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for  $a$  and  $b$  in  $(a + b)^2$  or  $(a - b)^2$ . Hint: All numbers are positive.

formula	$a$	$b$	$a^2$	$b^2$	$2ab$	expanded form
$(10s - 8r)^2$	$10s$	$8r$	$100s^2$	$64r^2$	$2 \cdot 10s8r = 160rs$	$64r^2 - 160rs + 100s^2$
$(6y + 7x)^2$	$6y$	$7x$	$36y^2$	$49x^2$	$2 \cdot 6y7x = 84xy$	$49x^2 + 84xy + 36y^2$
$(10y - 5x)^2$	$10y$	$5x$	$100y^2$	$25x^2$	$2 \cdot 10y5x = 100xy$	$25x^2 - 100xy + 100y^2$
$(4x - 3y)^2$	$4x$	$3y$	$16x^2$	$9y^2$	$2 \cdot 4x3y = 24xy$	$16x^2 - 24xy + 9y^2$
$(6s + 3r)^2$	$6s$	$3r$	$36s^2$	$9r^2$	$2 \cdot 6s3r = 36rs$	$9r^2 + 36rs + 36s^2$
$(2r + 3s)^2$	$2r$	$3s$	$4r^2$	$9s^2$	$2 \cdot 2r3s = 12rs$	$4r^2 + 12rs + 9s^2$
$(5x - 9y)^2$	$5x$	$9y$	$25x^2$	$81y^2$	$2 \cdot 5x9y = 90xy$	$25x^2 - 90xy + 81y^2$
$(6y + 6x)^2$	$6y$	$6x$	$36y^2$	$36x^2$	$2 \cdot 6y6x = 72xy$	$36x^2 + 72xy + 36y^2$
$(5y + 6x)^2$	$5y$	$6x$	$25y^2$	$36x^2$	$2 \cdot 5y6x = 60xy$	$36x^2 + 60xy + 25y^2$
$(7r - 7s)^2$	$7r$	$7s$	$49r^2$	$49s^2$	$2 \cdot 7r7s = 98rs$	$49r^2 - 98rs + 49s^2$

Good Luck!