

# 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.

Quick:  
7596

formula	$a$	$b$	$a^2$	$b^2$	$2ab$	expanded form
$(r - 19)^2$	$r$	19	$r^2$	361	$2r19=38r$	$r^2-38r+361$
$(r - 10)^2$	$r$	10	$r^2$	100	$2r10=20r$	$r^2-20r+100$
$(y + x)^2$	$y$	$x$	$y^2$	$x^2$	$2yx=2xy$	$x^2+2xy+y^2$
$(8 + r)^2$	8	$r$	64	$r^2$	$2\cdot8r=16r$	$r^2+16r+64$
$(x - y)^2$	$x$	$y$	$x^2$	$y^2$	$2xy=2xy$	$x^2-2xy+y^2$
$(s + r)^2$	$s$	$r$	$s^2$	$r^2$	$2sr=2rs$	$r^2+2rs+s^2$
$(x - 16)^2$	$x$	16	$x^2$	256	$2x16=32x$	$x^2-32x+256$
$(r - 20)^2$	$r$	20	$r^2$	400	$2r20=40r$	$r^2-40r+400$
$(r + s)^2$	$r$	$s$	$r^2$	$s^2$	$2rs=2rs$	$r^2+2rs+s^2$
$(s - r)^2$	$s$	$r$	$s^2$	$r^2$	$2sr=2rs$	$r^2-2rs+s^2$

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
$(8s + 3r)(8s - 3r)$	$8s$	$3r$	$64s^2$	$9r^2$	$64s^2 - 9r^2$
$(4r + 7s)(4r - 7s)$	$4r$	$7s$	$16r^2$	$49s^2$	$16r^2 - 49s^2$
$(9x + 9y)(9x - 9y)$	$9x$	$9y$	$81x^2$	$81y^2$	$81x^2 - 81y^2$
$(3s + 6r)(3s - 6r)$	$3s$	$6r$	$9s^2$	$36r^2$	$9s^2 - 36r^2$
$(7r + 9s)(7r - 9s)$	$7r$	$9s$	$49r^2$	$81s^2$	$49r^2 - 81s^2$
$(6r + 5s)(6r - 5s)$	$6r$	$5s$	$36r^2$	$25s^2$	$36r^2 - 25s^2$
$(8r + 3s)(8r - 3s)$	$8r$	$3s$	$64r^2$	$9s^2$	$64r^2 - 9s^2$
$(5x + 9y)(5x - 9y)$	$5x$	$9y$	$25x^2$	$81y^2$	$25x^2 - 81y^2$
$(6s + 4r)(6s - 4r)$	$6s$	$4r$	$36s^2$	$16r^2$	$36s^2 - 16r^2$
$(2x + 6y)(2x - 6y)$	$2x$	$6y$	$4x^2$	$36y^2$	$4x^2 - 36y^2$

3)

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

Quick:  
7596

formula	$a$	$b$	$a^2$	$b^2$	expanded form
$(20 + x)(20 - x)$	$20$	$x$	$400$	$x^2$	$400 - x^2$
$(7 + x)(7 - x)$	$7$	$x$	$49$	$x^2$	$49 - x^2$
$(x + y)(x - y)$	$x$	$y$	$x^2$	$y^2$	$x^2 - y^2$
$(x + 9)(x - 9)$	$x$	$9$	$x^2$	$81$	$x^2 - 81$
$(r + 13)(r - 13)$	$r$	$13$	$r^2$	$169$	$r^2 - 169$
$(r + s)(r - s)$	$r$	$s$	$r^2$	$s^2$	$r^2 - s^2$
$(17 + x)(17 - x)$	$17$	$x$	$289$	$x^2$	$289 - x^2$
$(x + 11)(x - 11)$	$x$	$11$	$x^2$	$121$	$x^2 - 121$
$(8 + r)(8 - r)$	$8$	$r$	$64$	$r^2$	$64 - r^2$
$(s + r)(s - r)$	$s$	$r$	$s^2$	$r^2$	$s^2 - r^2$

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
$(2r - 6s)^2$	$2r$	$6s$	$4r^2$	$36s^2$	$2 \cdot 2r6s = 24rs$	$4r^2 - 24rs + 36s^2$
$(4x + 6y)^2$	$4x$	$6y$	$16x^2$	$36y^2$	$2 \cdot 4x6y = 48xy$	$16x^2 + 48xy + 36y^2$
$(3x - 9y)^2$	$3x$	$9y$	$9x^2$	$81y^2$	$2 \cdot 3x9y = 54xy$	$9x^2 - 54xy + 81y^2$
$(8r + 8s)^2$	$8r$	$8s$	$64r^2$	$64s^2$	$2 \cdot 8r8s = 128rs$	$64r^2 + 128rs + 64s^2$
$(2s + 9r)^2$	$2s$	$9r$	$4s^2$	$81r^2$	$2 \cdot 2s9r = 36rs$	$81r^2 + 36rs + 4s^2$
$(5x + 7y)^2$	$5x$	$7y$	$25x^2$	$49y^2$	$2 \cdot 5x7y = 70xy$	$25x^2 + 70xy + 49y^2$
$(9x + 6y)^2$	$9x$	$6y$	$81x^2$	$36y^2$	$2 \cdot 9x6y = 108xy$	$81x^2 + 108xy + 36y^2$
$(10x + 7y)^2$	$10x$	$7y$	$100x^2$	$49y^2$	$2 \cdot 10x7y = 140xy$	$100x^2 + 140xy + 49y^2$
$(7s - 5r)^2$	$7s$	$5r$	$49s^2$	$25r^2$	$2 \cdot 7s5r = 70rs$	$25r^2 - 70rs + 49s^2$
$(7s - 8r)^2$	$7s$	$8r$	$49s^2$	$64r^2$	$2 \cdot 7s8r = 112rs$	$64r^2 - 112rs + 49s^2$

Good Luck!