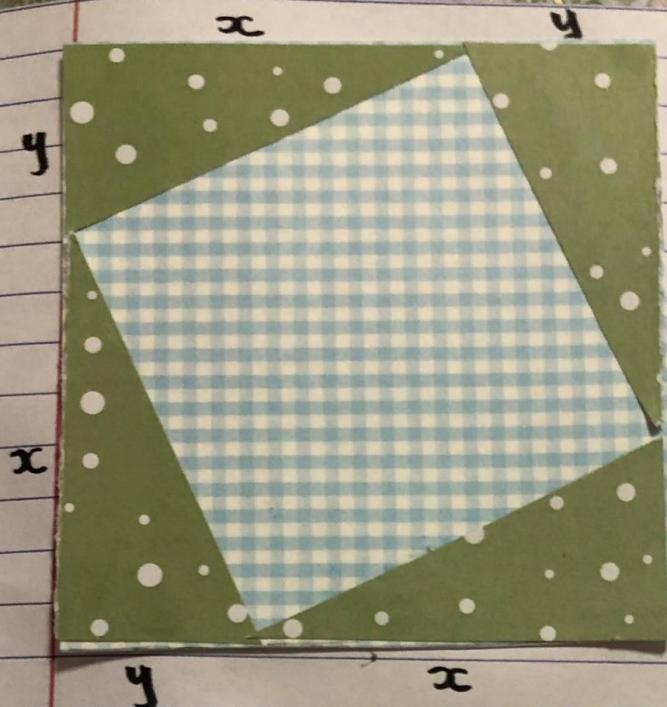


## Quadratics

Thursday 3rd December

- 1)  $x^2 + 5x + 4 = 0$   $(x+4)(x+1)$   $x = -4$   $x = -1$
- 2)  $a^2 + 7a + 12 = 0$   $(a+4)(a+3)$   $a = -4$   $a = -3$
- 3)  $b^2 + 10b + 21 = 0$   $(b+7)(b+3)$   $b = -7$   $b = -3$
- 4)  $n^2 + 10n + 21 = 0$   $(n+7)(n+3)$   $n = -7$   $n = -3$
- 5)  $k^2 + 8k + 12 = 0$   $(k+6)(k+2)$   $k = -6$   $k = -2$
- 6)  $x^2 + 9x + 18 = 0$   $(x+6)(x+3)$   $x = -6$   $x = -3$
- 7)  $d^2 + 10d + 24 = 0$   $(d+6)(d+4)$   $d = -6$   $d = -4$
- 8)  $p^2 + 18p + 81 = 0$   $(p+9)(p+9)$   $p = -9$
- 9)  $v^2 - 6v + 8 = 0$   $(v-4)(v-2)$   $v = 4$   $v = 2$
- 10)  $q^2 - 8q + 15 = 0$   $(q-5)(q-3)$   $q = 5$   $q = 3$
- 11)  $x^2 - 6x + 5 = 0$   $(x-5)(x-1)$   $x = 5$   $x = 1$
- 12)  $a^2 - 9a + 20 = 0$   $(a-5)(a-4)$   $a = 5$   $a = 4$
- 13)  $f^2 - 15f + 36 = 0$   $(f-12)(f-3)$   $f = 3$   $f = 12$
- 14)  $k^2 - 16k + 48 = 0$   $(k-12)(k-4)$   $k = 12$   $k = 4$
- 15)  $e^2 - 13e + 36 = 0$   $(e-9)(e-4)$   $e = 9$   $e = 4$
- 16)  $w^2 - 17w + 72 = 0$   $(w-9)(w-8)$   $w = 9$   $w = 8$
- 17)  $h^2 + 4h - 12 = 0$   $(h+6)(h-2)$   $h = -6$   $h = 2$
- 18)  $c^2 + 2c - 24 = 0$   $(c+6)(c-4)$   $c = -6$   $c = 4$
- 19)  $y^2 + 10y - 11 = 0$   $(y+11)(y-1)$   $y = -11$   $y = 1$
- 20)  $u^2 + 3u - 18 = 0$   $(u+6)(u-3)$   $u = -6$   $u = 3$
- 21)  $m^2 + m - 56 = 0$   $(m-7)(m+8)$   $m = 7$   $m = -8$
- 22)  $r^2 + 4r - 21 = 0$   $(r+7)(r-3)$   $r = -7$   $r = 3$
- 23)  $c^2 + 7c - 60 = 0$   $(c+12)(c-5)$   $c = -12$   $c = 5$
- 24)  $v^2 + 13v - 48 = 0$   $(v+16)(v-3)$   $v = -16$   $v = 3$
- 25)  $g^2 - 14g - 15 = 0$   $(g-15)(g+1)$   $g = 15$   $g = -1$
- 26)  $s^2 - 5s - 72 = 0$   $(s+8)(s-9)$   $s = -8$   $s = 9$
- 27)  $e^2 - e - 2 = 0$   $(e+1)(e-2)$   $e = -1$   $e = 2$
- 28)  $t^2 - 3t - 10 = 0$   $(t+2)(t-5)$   $t = 5$   $t = -2$
- 29)  $x^2 - 2x - 15 = 0$   $(x-5)(x+3)$   $x = 5$   $x = -3$
- 30)  $d^2 - 10d - 24 = 0$   $(d-12)(d+2)$   $d = 12$   $d = -2$



$$\text{Area of 1 triangle} = \frac{1}{2}(x \times y)$$

$$\text{Area of 4 triangles} = 4 \times \frac{1}{2}(xy) = 2xy$$

$$\text{Full dotted square} = (x+y)^2 = x^2 + y^2 + 2xy$$

little checked =  $x^2$   
Big checked =  $xy^2$

remember =  
 $a^2 + b^2 = c^2$

