

2. Factor this!!! (If possible) (10 x 3 ea. = 30)

(a) $54x^2y^4 + 18xy^2$
 $= 18xy^2(3xy^2 + 1)$

(b) $ab + 3a + b + 3$
 $= (b+3)(a+1)$

(c) $9x^2 - 24x + 16$
 $= (3x - 4)^2$

(d) $b^2 - 9b - 22$
 $= (b-11)(b+2)$

(e) $6x^2 + 11x - 7$
 $= (3x+7)(2x-1)$

(f) $x^2 + 5xy - 14y^2$
 $= (x+7y)(x-2y)$

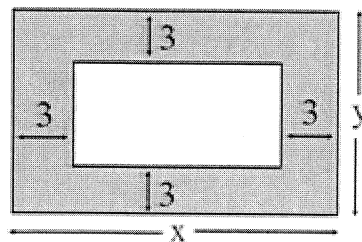
(g) $-2x^2 + 18x - 40$
 $= -2(x-4)(x-5)$

(h) $x^4 + 16$
cannot be factored

(i) $162m^3 - 50mn^2$
 $= 2m(9m+5n)(9m-5n)$

(j) $2x^2 - 7x + 3$
 $= (x-3)(2x-1)$

3. Write an expression for the area of the shaded region as a polynomial and then in factored form. (5)



$$= 6(x+y-6)$$