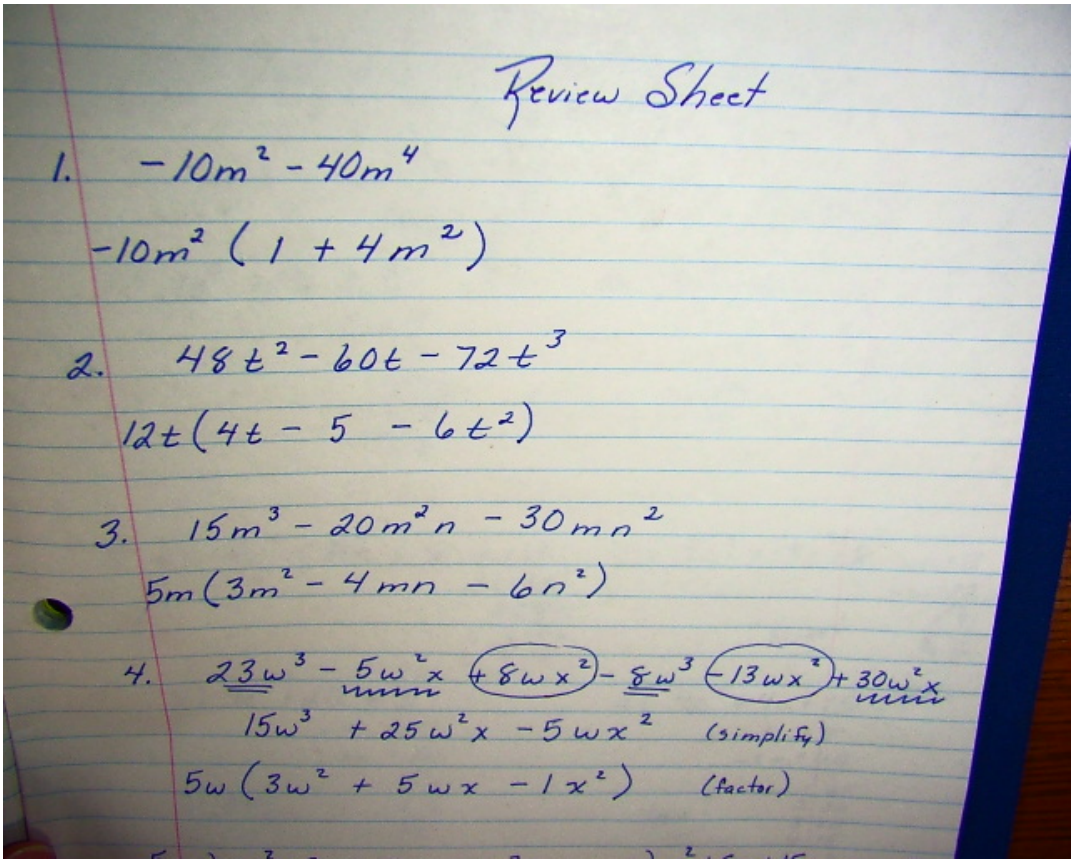


Review Sheet

1. $-10m^2 - 40m^4$

$-10m^2(1 + 4m^2)$

2. $48t^2 - 60t - 72t^3$

$12t(4t - 5 - 6t^2)$

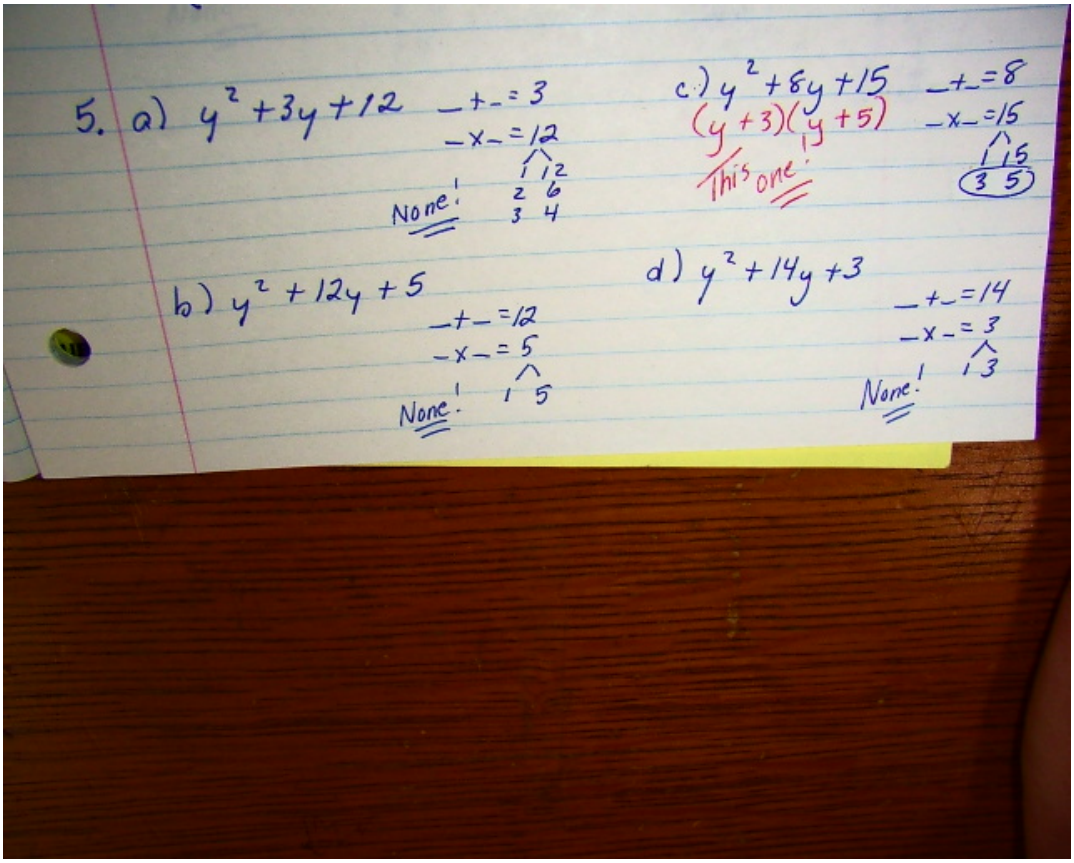
3. $15m^3 - 20m^2n - 30mn^2$

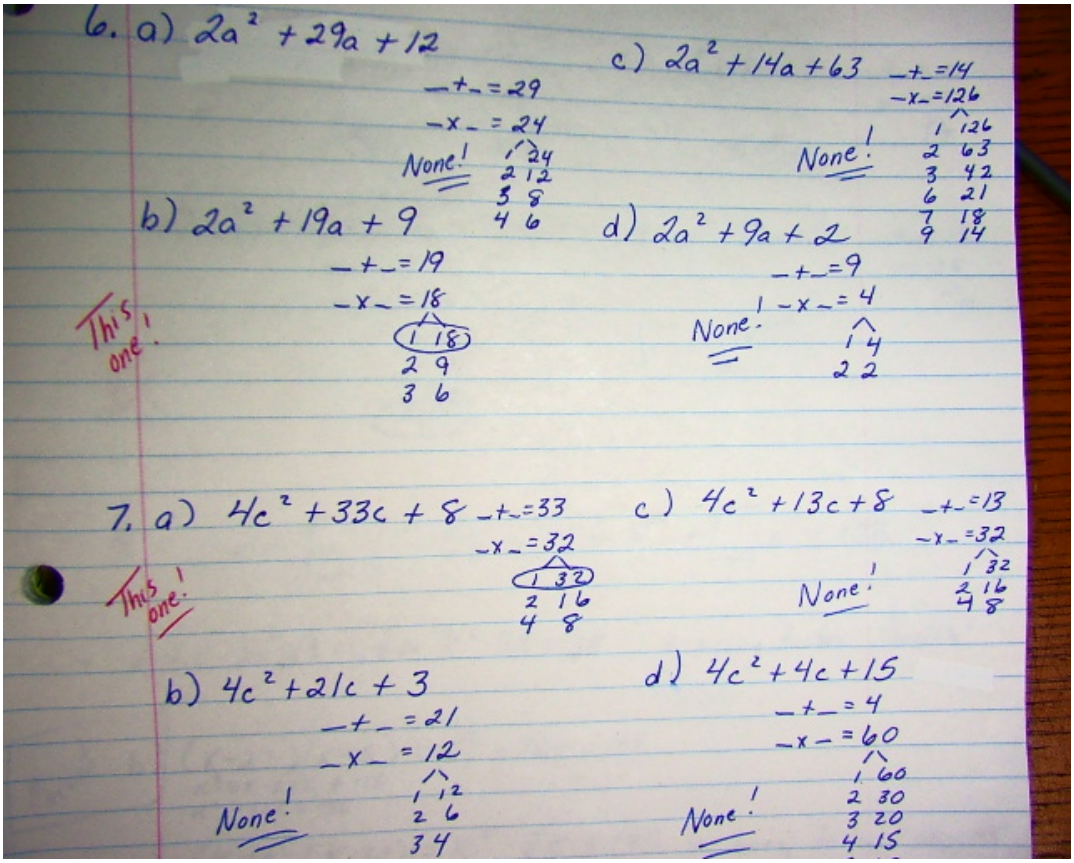
$5m(3m^2 - 4mn - 6n^2)$

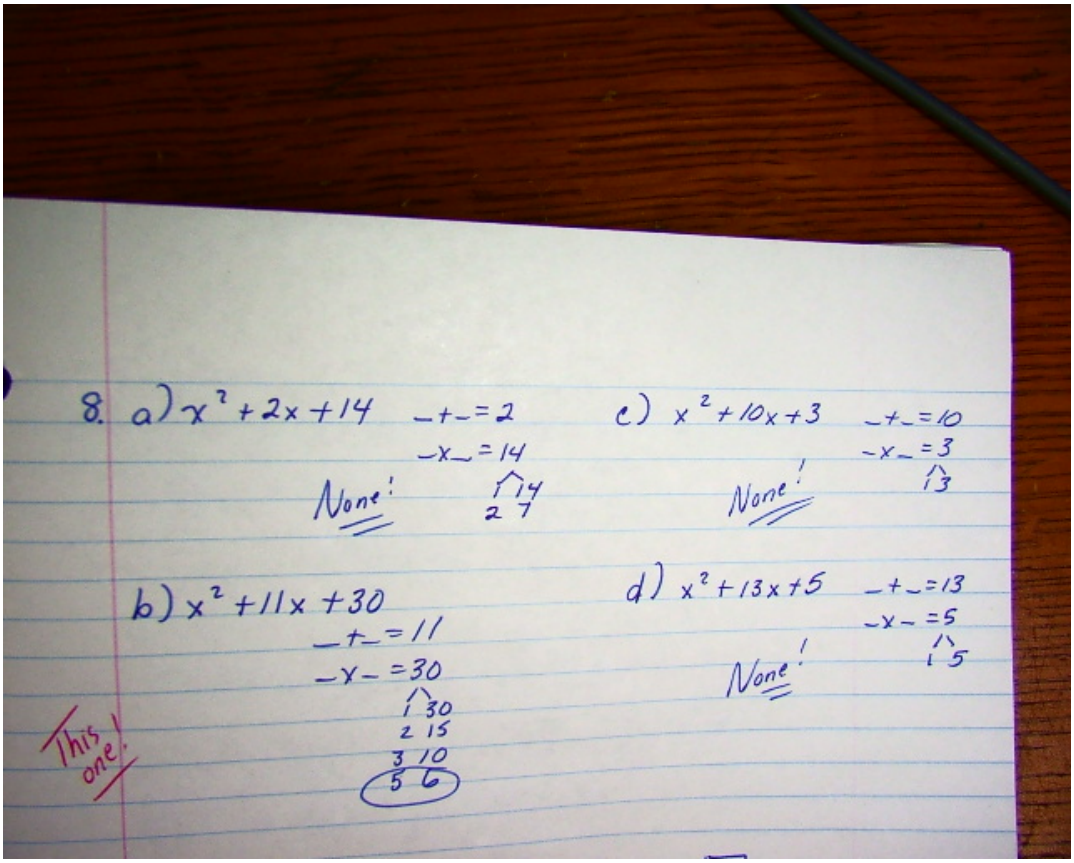
4. $23w^3 - 5w^2x + 8wx^2 - 8w^3 - 13wx^2 + 30w^2x$

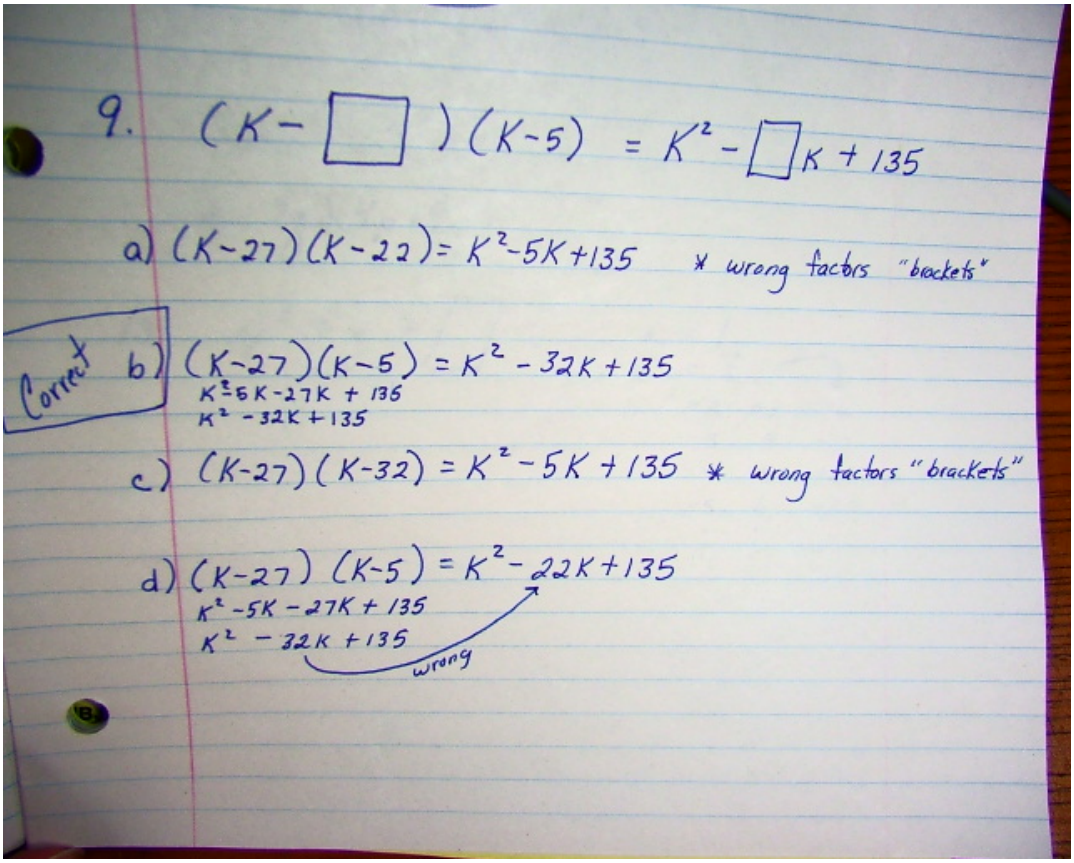
$15w^3 + 25w^2x - 5wx^2$ (simplify)

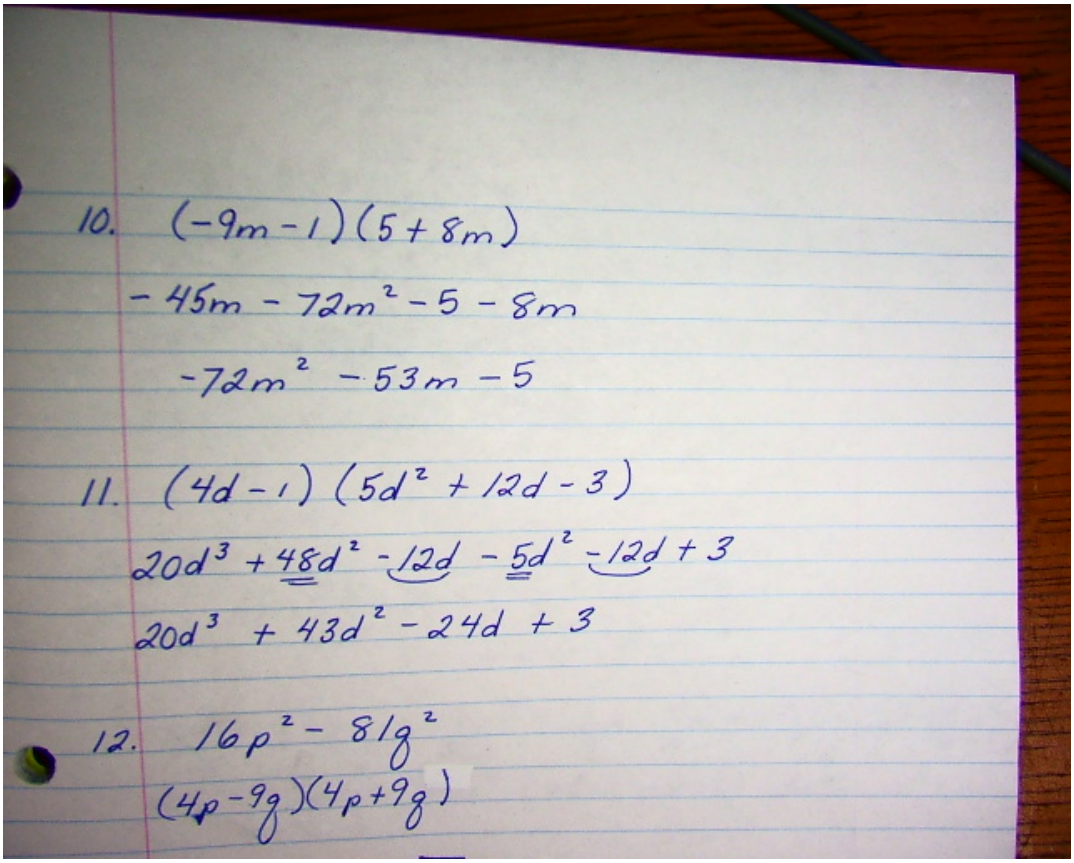
$5w(3w^2 + 5wx - 1x^2)$ (factor)

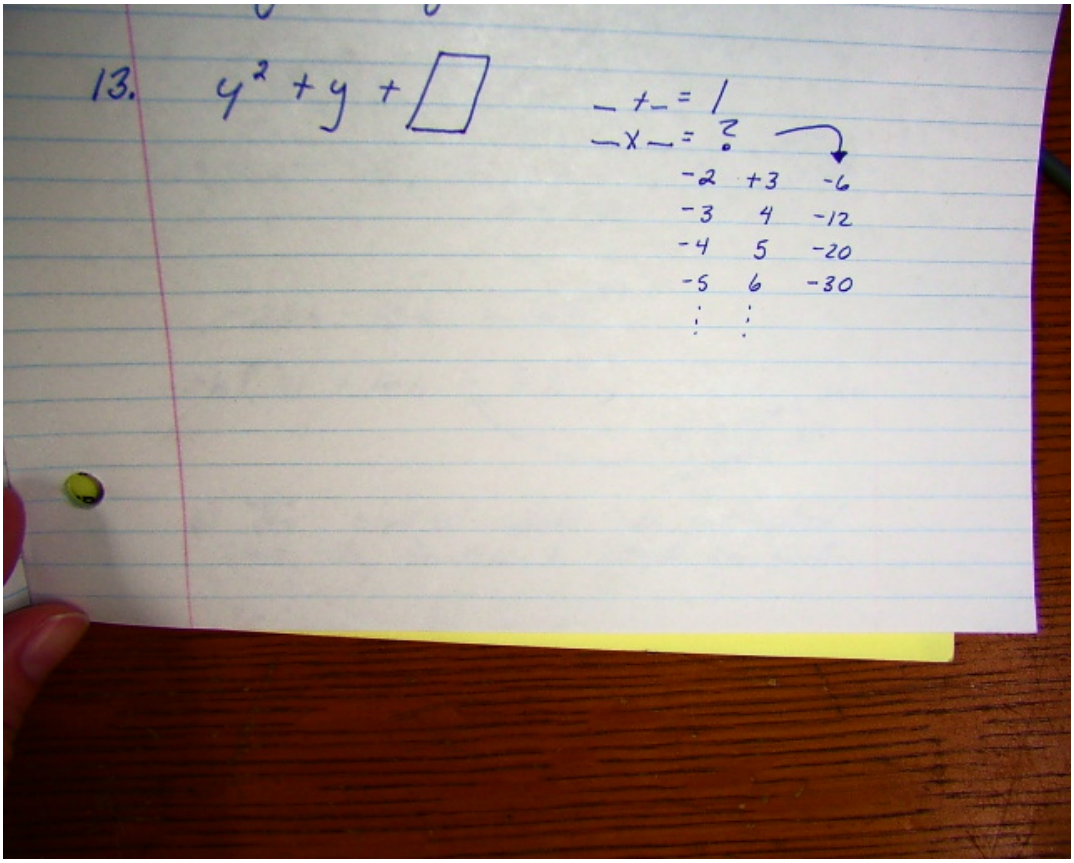

5. a) $y^2+3y+12$
_+_=3
_x_=12
1 12
2 6
3 4
None!
b) $y^2+12y+5$
_+_=12
_x_=5
1 5
None!
c) $y^2+8y+15$
$(y+3)(y+5)$
This one!
_+_=8
_x_=15
1 15
3 5
d) $y^2+14y+3$
_+_=14
_x_=3
1 3
None!

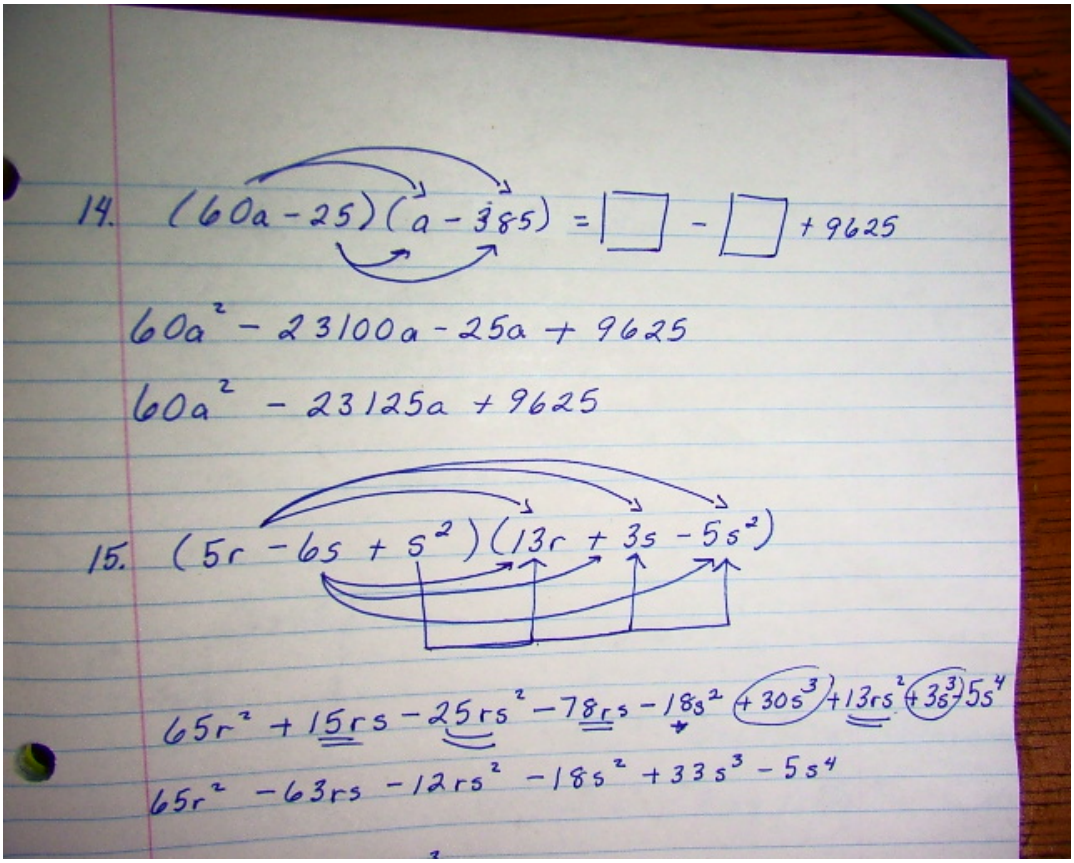

6. a) $2a^2 + 29a + 12$
$-+- = 29$
$-x- = 24$
None!
1 24
2 12
3 8
4 6
b) $2a^2 + 19a + 9$
$-+- = 19$
$-x- = 18$
This one!
1 18
2 9
3 6
c) $2a^2 + 14a + 63$
$-+- = 14$
$-x- = 126$
None!
1 126
2 63
3 42
6 21
7 18
9 14
d) $2a^2 + 9a + 2$
$-+- = 9$
$1 -x- = 4$
None.
1 4
2 2
7. a) $4c^2 + 33c + 8$
$-+- = 33$
$-x- = 32$
This one!
1 32
2 16
4 8
b) $4c^2 + 21c + 3$
$-+- = 21$
$-x- = 12$
None!
1 12
2 6
3 4
c) $4c^2 + 13c + 8$
$-+- = 13$
$-x- = 32$
None.
1 32
2 16
4 8
d) $4c^2 + 4c + 15$
$-+- = 4$
$-x- = 60$
None!
1 60
2 30
3 20
4 15

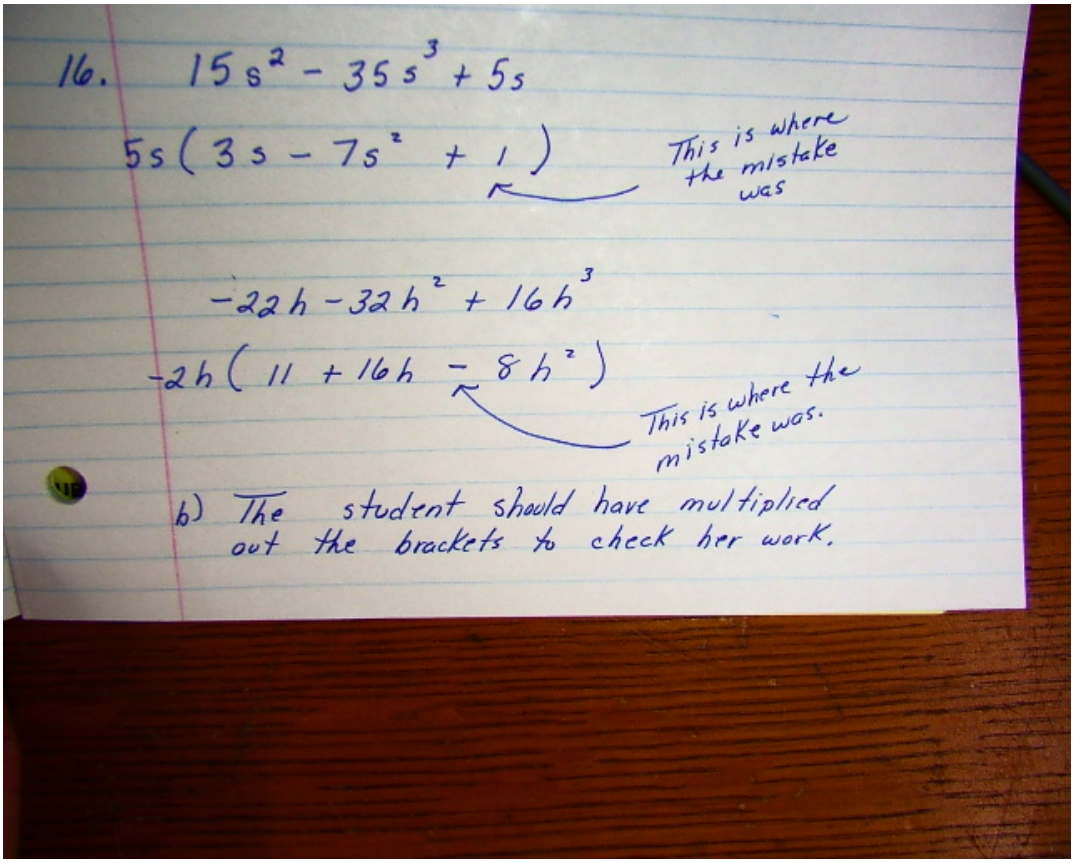

8. a) $x^2+2x+14$
_+_=2
_x_=14
None!
1 14
2 7
b) $x^2+11x+30$
_+_=11
_x_=30
1 30
2 15
3 10
5 6
This one!
c) $x^2+10x+3$
_+_=10
_x_=3
1 3
None!
d) $x^2+13x+5$
_+_=13
_x_=5
1 5
None!

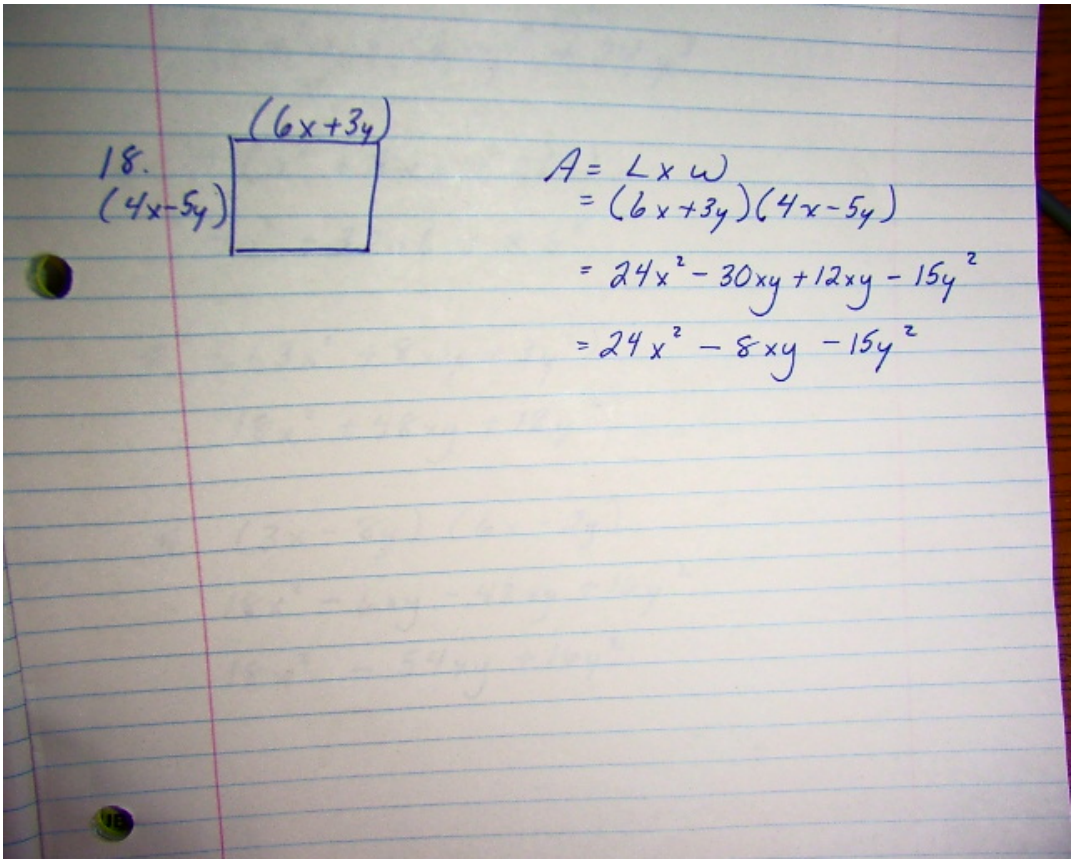

9. (K- □)(K-5) = K² - □K + 135
a) (K-27)(K-22) = K²-5K+135 * wrong factors "brackets"
Correct
b) (K-27)(K-5) = K² - 32K + 135
K²-5K-27K + 135
K² - 32K + 135
c) (K-27)(K-32) = K² - 5K + 135 * wrong factors "brackets"
d) (K-27)(K-5) = K² - 22K + 135
K² - 5K - 27K + 135
K² - 32K + 135
wrong


10. (-9m - 1)(5 + 8m)
-45m - 72m² - 5 - 8m
-72m² - 53m - 5
11. (4d - 1)(5d² + 12d - 3)
20d³ + 48d² - 12d - 5d² - 12d + 3
20d³ + 43d² - 24d + 3
12. 16p² - 81q²
(4p - 9q)(4p + 9q)


13. $y^2 + y +$ □
_ + _ = 1
_ x _ = ?
-2 +3 -6
-3 4 -12
-4 5 -20
-5 6 -30


14. (60a - 25)(a - 385) = □ - □ + 9625
60a² - 23100a - 25a + 9625
60a² - 23125a + 9625
15. (5r - 6s + s²)(13r + 3s - 5s²)
65r² + 15rs - 25rs² - 78rs - 18s² + 30s³ + 13rs² + 3s³ - 5s⁴
65r² - 63rs - 12rs² - 18s² + 33s³ - 5s⁴


16. $15s^2 - 35s^3 + 5s$
$5s(3s - 7s^2 + 1)$
This is where the mistake was
$-22h - 32h^2 + 16h^3$
$-2h(11 + 16h - 8h^2)$
This is where the mistake was.
b) The student should have multiplied out the brackets to check her work.


18.
(6x+3y)
(4x-5y)
A = L x w
= (6x+3y)(4x-5y)
= 24x² - 30xy + 12xy - 15y²
= 24x² - 8xy - 15y²