

RH Homework

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- 17) $(5y-2)(3y-1)$
 $15y^2 - 5y - 6y + 2$
 $15y^2 - 11y + 2$
- 19) $(3d+8)(3d-8)$
 $9d^2 - 24d + 24d - 64$
 $9d^2 - 64$
- 21) $(a-b)(a+b)$
 $a^2 + ab - ba - b^2$
 $a^2 - b^2$
- 23) $(a+b)^2$
 $(a+b)(a+b)$
 $a^2 + ab + ba + b^2$
 $a^2 + 2ab + b^2$
- 25) $(x-4y)^2$
 $(x-4y)(x-4y)$
 $x^2 - 4xy - 4xy + 16y^2$
 $x^2 - 8xy + 16y^2$
- 27) $(r^2+5)(r^2-2)$
 $r^4 - 2r^2 + 5r^2 - 10$
 $r^4 + 3r^2 - 10$
- 29) $(x+2)(x^2+3x+5)$
 $x^3 + 3x^2 + 5x$
 $+ 2x^2 + 6x + 10$
 $x^3 + 5x^2 + 11x + 10$
- 31) $(3-2a-a^2)(5-2a)$
 $15 - 6a - 10a + 4a^2 - 5a^2 + 2a^3$
 $2a^3 - a^2 - 16a + 15$
- 33) $(x+4)(x+4)(x+4)$
 $(x^2 + 4x + 4x + 16)(x+4)$
 $(x^2 + 8x + 16)(x+4)$
 $x^3 + 4x^2 + 8x^2 + 32x + 16x + 64$
 $x^3 + 12x^2 + 48x + 64$
- 35) $(x-y)^3$
 $(x-y)(x-y)(x-y)$
 $(x^2 - xy - xy + y^2)(x-y)$
 $(x^2 - 2xy + y^2)(x-y)$
 $x^3 - x^2y - 2x^2y + 2xy^2 + xy^2 - y^3$
 $x^3 - 3x^2y + 3xy^2 - y^3$
- 37) $2(3x+1)(2x-3) + 14x$
 $(6x+2)(2x-3) + 14x$
 $12x^2 - 18x + 4x - 6 + 14x$
 $12x^2 - 6$
- 39) $8x^2 - (4x+3)(2x-1)$
 $8x^2 - (8x^2 - 4x + 6x - 3)$
 $8x^2 - (8x^2 + 2x - 3)$
 $8x^2 - 8x^2 - 2x + 3$
 $-2x + 3$

$$\begin{aligned}
 41) \quad & (3y+5)(2y-3) - (y+7)(5y-1) \\
 & 6y^2 - 9y + 10y - 15 - (5y^2 - y + 35y - 7) \\
 & 6y^2 + y - 15 - 5y^2 - 34y + 7 \\
 & y^2 - 33y - 8
 \end{aligned}$$

$$\begin{aligned}
 43) \quad & a [(a+2)(a-2) - 4] \\
 & a [a^2 + 2a - 2a - 4 - 4] \\
 & a [a^2 - 8] \\
 & a^3 - 8a
 \end{aligned}$$

$$45) \quad \begin{array}{|c|} \hline \\ \hline \end{array} \begin{array}{l} 3x+5 \\ 11x-8 \end{array}$$

$$\begin{aligned}
 A &= bh \\
 &= (3x+5)(11x-8) \\
 &= 33x^2 - 24x + 55x - 40 \\
 &= 33x^2 + 31x - 40 \text{ units}^2
 \end{aligned}$$