Simple linear equation and Expression

Solve the following equation:

1. $3x + 1 = 10$ _____

2. $2x - 5 = 7$ _____

3. $3 - x = 5$ _____

4. $2(1 - x) = 12$ _____

5. $3(3 - 2x) = 6$ _____

6. $2x + 2 = x + 4$ _____

7. $1 - y = 3y + 5$ _____

8. $5x - 2 = 12 - 2x$ _____

Expand and solve for unknown value.

9. $2(5x + 1) = 3(3x + 7)$

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10. $3(2x - 5) = 3(x + 1)$

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11. $2(2x + 1) - 3(x - 1) = 8$

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12. $3x + 1 = 3(2x + 6)$

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Simplify the following algebraic expression

a) $3b + 5b - 2b$

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b) $3a + 9b - 2b$

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c) $14m - 6k - 5m + 3k + 4k$

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d) $4x^2 + 2x + 3x^2 + 5x + 6$

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e) $5 + 3x^2 + 4 + x + 2x^2 + 6$

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f) $8 + 6x^2 - 4 + 9x + 2x^2 - 6x$

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f) $2a^2 \times 3a$

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g) $4p^3 \times 5p^2$

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h) $5z^3 \times 8z^2$

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Find the value of the following expressions for different values of 'x' and 'y'

Expression	When x= 5	When x = 7	Expression	x=3,y=2	x=5, y=-3
3(2x - 5)			6x + 10y		
2x-7			3(x +3)+ 2(y-1)		
-4x+5			3x-2y		
2(x+5)			-7x + 4y		