



Name: _____

Date: _____

Substitution - Challenge

Substitute the given values for each variable.

1. $1x^2 + 5y^2 + 5$; $x=4, y=4$

2. $5(4x + 2y)$; $x=4, y=6$

3. $3(5x + 3y)$; $x=8, y=8$

4. $1w + 3x + 2y - 2z$; $w=5, x=4, y=6, z=3$

5. $2(5x + 2y)$; $x=7, y=5$

6. $3x^2 + 2y^2 + 2$; $x=4, y=3$

7. $1w + 4x + 4y - 3z$; $w=7, x=2, y=7, z=6$

8. $3x^2 + 5y - 2z$; $x=5, y=5, z=3$



Name: _____

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Substitution - Challenge

Substitute the given values for each variable.

9. $1x^2 + 5y - 5z; x=4, y=2, z=5$

10. $3(4x + 3y); x=7, y=5$

11. $2x^2 + 4y - 2z; x=2, y=5, z=3$

12. $2x^2 + 4y^2 + 3; x=4, y=3$

13. $2w + 2x + 4y - 2z; w=3, x=7, y=5, z=6$

14. $2(3x + 2y); x=3, y=5$

15. $4(6x + 4y); x=8, y=5$

16. $2x^2 + 4y^2 + 7; x=5, y=5$



Substitution - Challenge - Answer Key

1. $1x^2 + 5y^2 + 5; x=4, y=4$

101

2. $5(4x + 2y); x=4, y=6$

140

3. $3(5x + 3y); x=8, y=8$

192

4. $1w + 3x + 2y - 2z; w=5, x=4, y=6, z=3$

23

5. $2(5x + 2y); x=7, y=5$

90

6. $3x^2 + 2y^2 + 2; x=4, y=3$

68

7. $1w + 4x + 4y - 3z; w=7, x=2, y=7, z=6$

25

8. $3x^2 + 5y - 2z; x=5, y=5, z=3$

94



Substitution - Challenge - Answer Key

9. $1x^2 + 5y - 5z; x=4, y=2, z=5$

1

10. $3(4x + 3y); x=7, y=5$

129

11. $2x^2 + 4y - 2z; x=2, y=5, z=3$

22

12. $2x^2 + 4y^2 + 3; x=4, y=3$

71

13. $2w + 2x + 4y - 2z; w=3, x=7, y=5, z=6$

28

14. $2(3x + 2y); x=3, y=5$

38

15. $4(6x + 4y); x=8, y=5$

272

16. $2x^2 + 4y^2 + 7; x=5, y=5$

157