1st year algebra exam

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55/55 100%

Simplify the following:

$12x + 3a + 2x + 5a$

$12x + 3a + 2x + 5a$

$12x + 8a + 2x$

$14x + 8a$

5

$3x^2 + 5y + 2x^2 + 4y + 3x$

$3x^2 + 5y + 2x^2 + 4y + 3x$

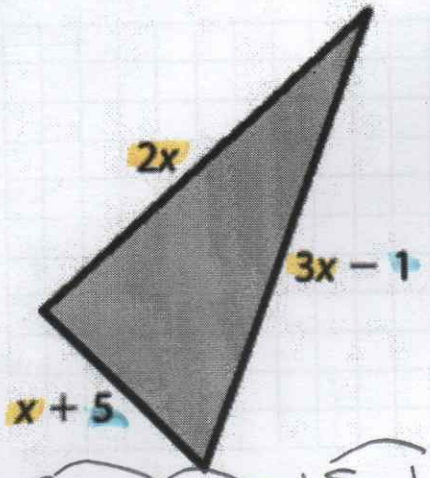
$5x^2 + 5y + 4y + 3x$

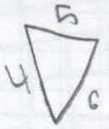
$5x^2 + 9y + 3x$

5

Q2

Find an expression for the perimeter of this triangle





4+6+5
15

2x + x + 3x + 5 − 1

2x + x + 5 + 3x − 1

6x + 5 − 1

6x + 4

5

Q3 Simplify each of the following

(5a)(3a)

$(5a)(3a)$

$15a^2$

5

5(2x+y)

$5(2x+y)$

$10x+5y$

5

5(2x+4) + 3(3x+2)

$5(2x+4)+3(3x+2)$

$10x+20+9x+6$

$19x+20+6$

$19x+26$

5

Q4 Solve the following equations

$2x+1 = 9$

$2x+1=9$

$\frac{2x}{2}=\frac{8}{2}$

$1x=4$

5

$5x+1 = 3x+9$

$5x+1=3x+9$

$2x+1=9$

$\frac{2x}{2}=\frac{8}{2}$

$1x=4$

5

$6(1+2x) = 5(3x-1) - 4$

$6(1+2x)=5(3x-1)-4$

$6+12x=15x-5-4$

$6+12x=15x-9$

$12x=15x-15$

$-3x=-15$

$\frac{-3x}{-3}=\frac{-15}{-3}$

$1x=5$ ✓

5

Q5

+3 +3 +3 +3

2,5,8,11,14……..

Write the next three terms in the above pattern.

2, 5, 8, 11, 14, 17, 20, 23

5

Is this a linear or non Linear pattern? Explain your answer

This is a linear pattern because it goes up by +3 each time

5