

Algebra 1 - Structure of Algebraic Expressions - Test

Common Core A-SSE.A.1a, A-SSE.A.1b · maths-pdf.fr/en/

Name: _____ Class: _____ Date: ____/____/____

This 45-minute test on algebraic expressions covers Common Core A-SSE.A.1 and is worth 20 points. Work alone, show all steps, and use a calculator only if your teacher allows it. Partial credit is given for correct work, so write down your reasoning even when you are unsure of the final answer.

About this test

- Grade: Algebra 1
- Chapter: Structure of Algebraic Expressions
- Standards: A-SSE.A.1a, A-SSE.A.1b
- Time: 45 minutes
- Total: 20 points

Question 1 - Parts of an expression [2 pts]

$6x^2$	$- 7x$	$+ 12$
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Expression for question 1.

Use the expression $6x^2 - 7x + 12$.

- Identify the constant term. (1 point)
- Identify the coefficient of x . (1 point)

Question 2 - Evaluate [2 pts]

Evaluate $2x^2 - 3x + 1$ when $x = -3$.

Question 3 - Combine like terms [2 pts]

Simplify $9a-4+2a+10$.

Question 4 - Distribute and subtract [2 pts]

Simplify $5(2x-3)-4(x-1)$.

Question 5 - Streaming plan [2 pts]

Weeks w	Cost $9.99 + 2.5w$
1	\$12.49
2	\$14.99
4	\$19.99

Streaming plan cost.

A streaming plan costs $9.99+2.5w$ dollars for w weeks of premium add-ons.

- Explain what 2.5 represents. (1 point)
- Explain what 9.99 represents. (1 point)

Question 6 - Write expressions [2 pts]

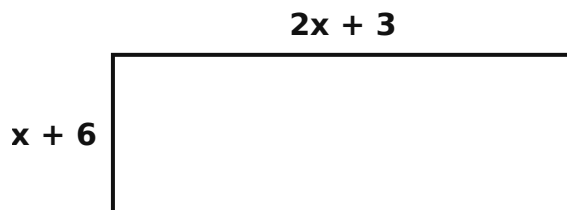
Write an algebraic expression for each phrase.

- 7 more than twice a number n . (1 point)
- The product of 6 and the sum of a number n and 4. (1 point)

Question 7 - Write as a product [2 pts]

Rewrite $3(x+4)+2(x+4)$ as a product of two factors, then evaluate it when $x=1$.

Question 8 - Perimeter [3 pts]



Rectangle for question 8.

A rectangle has length $2x+3$ and width $x+6$.

- Write a simplified expression for the perimeter. (2 points)
- Find the perimeter when $x=5$. (1 point)

Question 9 - Compare plans [3 pts]

Plan A costs $12+3.5g$ dollars and Plan B costs $20+2g$ dollars for g gigabytes of data.

- Explain what 3.5 means in Plan A. (1 point)
- Write a simplified expression for the amount Plan B costs more than Plan A. (1 point)
- Evaluate your expression for $g=4$ and interpret the result. (1 point)