

To pass this test you can have at most one error.

1. Simplify by using distributive property $(3x + 2y - 1)(-xy)$
2. Simplify by using distributive property $-2(4a - 3b)$.
3. Simplify by using distributive property $(6x + y - 1)(3x)$.
4. Simplify by collecting like terms $\frac{2}{5}y - \frac{3}{4}x^2 - \frac{1}{3}y + \frac{7}{8}x^2$.
5. Simplify by collecting like terms $ab + 3a - 4ab + 2a - 8b$.
6. Simplify $7(3 - x) - 6(8 - 13x)$.
7. Evaluate $x^2 - 3x^3$ when $x = -2$.
8. Find the area of a triangle with base of 16cm and height of 24cm.
9. Find the perimeter of a rectangle that has length of $\frac{1}{6}$ cm and width of $\frac{3}{4}$ cm. Express your answer as an improper fraction.
10. Evaluate $a^3 + 2abc - 3c^2$ when $a = 5$, $b = 9$ and $c = -1$.
11. Simplify by removing parentheses $2[5(x + y) - 2(3x + 4y)]$.
12. Simplify by removing parentheses $2b^2 - 3[5b + 2b(2 - b)]$.
13. Simplify by removing parentheses $-7(x - 3y^2 + 4) + 3y(4 - 6y)$.
14. Simplify by removing parentheses $\frac{1}{2}(x^2 - x(x^2 - 1))$.

Solutions

1. $xy - 3x^2y - 2xy^2$ 2. $-8a + 6b$ 3. $-3x + 18x^2 + 3xy$ 4. $\frac{1}{8}x^2 + \frac{1}{15}y$ 5. $5a - 8b - 3ab$ 6. $71x - 27$ 7. 28 8. 192 cm^2
9. $\frac{11}{6}$ cm 10. 32 11. $-2x - 6y$ 12. $-27b + 8b^2$ 13. $3y^2 + 12y - 7x - 28$ 14. $\frac{1}{2}x + \frac{1}{2}x^2 - \frac{1}{2}x^3$