3.7 – Distributive Property

MPM1D

1. Which expression shows $-3(x+5)$ expanded?

A) $-3x+15$
B) $-3x+5$
C) $-3x-8$
D) $-3x-15$

2. Expand using the distributive property

a) $4(x+2)$ b) $5(k-3)$ c) $-2(y+1)$

d) $-8(2-d)$ e) $5(2t-3)$ f) $-(4y-5)$

3. Expand

a) $y(y-4)$ b) $r(r+5)$ c) $x(2x-5)$

d) $q(-4q+8)$ e) $z(-3z+2)$ f) $m(-m-5)$

4. Expand

a) $2b(3b-5)$ b) $-4w(3w-1)$

c) $2x(-4x+3)$ d) $(4k+7)(-3k)$

5. Expand using distributive property

a) $(n-5)\times 4$

b) $(7m+6)(-4)$

c) $(7+c)(3c)$

d) $(4k+7)(-3k)$

6. Expand

a) $2(a^2+5a+3)$

b) $4x(x^2+x-3)$

c) $-5y(3y^2-7y-2)$

d) $(2y^2+3y-1)(4y)$

7. Expand and Simplify

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

b) $-4(y+1)+2(2y-3)$

c) $2(u+v)-3(u-v)$

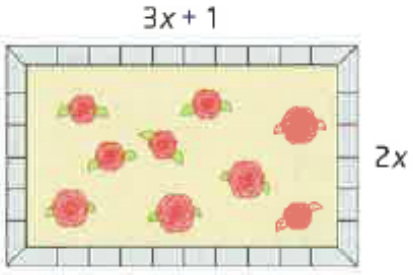
d) $4(w-2)-2(2w+7)$

8. Expand and Simplify

a) $3[x + 2(x - 4)]$ b) $3[2k - (2 + k)]$ c) $2[-h - 2(h - 1)]$

9. A garden has dimensions as shown:

a) Write a simplified expression to represent the perimeter.



b) Write a simplified expression for the area.

10. Expand and simplify

a) $3(y - 2) - 2(4 - 2y) + (6 - 7y)$ b) $4k(k - 3) - 2(k^2 - 3k + 4) - (k^2 - 5)$

c) $\frac{1}{3}(3a + 2) + \frac{1}{4}(4a - 2)$ d) $\frac{1}{2}(x - 2y) + \frac{1}{3}(3y - 2x)$