The Distributive Property

Level 1 - Multiply a binomial by a monomial
Level 2 - Multiply a trinomial by a monomial using fractions
Level 3 - Multiply polynomials using fractions and fractional exponents

scan for answers

Chapter 2: Worksheet 1

Level 1

Simplify the following expressions by using the distributive property.

a) $3(n+2)$	**b)** $4(x+3)$	**c)** $6(m-2)$
d) $-2(x+4)$	**e)** $4(2x+5)$	**f)** $6(3x-5)$
g) $5(2x-3)$	**h)** $3(2-3x)$	**i)** $8(2x+11)$
j) $x(x+4)$	**k)** $x(3x-4)$	**l)** $-n(2-n)$
m) $3y(y-2)$	**n)** $5k(2-2k)$	**o)** $-2x(-x+2)$
p) $2(n+3)+3(n+2)$	**q)** $3(x-2)+2(x-4)$	**r)** $-5(x+1)+2(x-6)$
s) $4(y+2)-3(y+5)$	**t)** $2(m+3)-4(m-2)$	**u)** $-4(x-2)-3(x-3)$

Level 2

Simplify the following expressions by using the distributive property.

a) $2(x^2+x+1)$	**b)** $4(n^3+n^2+n)$	**c)** $x(x^3+x^2-1)$
d) $\frac{1}{2}\left(x+\frac{1}{2}\right)$	**e)** $\frac{2}{3}\left(n-\frac{3}{2}\right)$	**f)** $\frac{1}{4}\left(2x+\frac{1}{3}\right)$
g) $a^2(2-a)$	**h)** $-n(-n^2-n-2)$	**i)** $y^3(y^3+y^2+y)$
j) $x(x-y)$	**k)** $h(h+k-g)$	**l)** $x(xy-x+y)$
m) $x\left(x+\frac{1}{x}\right)$	**n)** $y\left(y^2-\frac{x}{y}\right)$	**o)** $\frac{1}{x}\left(x+\frac{x}{2}-x^2\right)$

Level 3

Simplify the following expressions by using the distributive property.

a) $\frac{x}{4}\left(x+\frac{1}{3}\right)$	**b)** $\frac{2}{3}a\left(\frac{1}{2}a^2+\frac{1}{2}a-\frac{1}{2}\right)$	**c)** $m^{\frac{1}{2}}\left(m^{\frac{3}{2}}+m^{\frac{5}{2}}\right)$
d) $x^{\frac{1}{2}}\left(4x^{\frac{3}{2}}-2x^{\frac{1}{2}}\right)$	**e)** $\frac{2}{3}x^{\frac{1}{2}}\left(3x^{\frac{3}{2}}-\frac{3}{2}x^{\frac{-1}{2}}\right)$	**f)** $\frac{x}{y}\left(xy+\frac{y}{x}\right)$
g) $x^{\frac{3}{2}}\left(x^{\frac{3}{2}}-x^{\frac{1}{2}}\right)+x(x^2+1)$	**h)** $a^{-\frac{1}{2}}\left(a+a^{\frac{1}{2}}\right)$	**i)** $ab\left(\frac{a}{b^2}+a^{-1}b\right)$