



Math worksheet on 'Algebraic Functions - Variable Substitution to Equation - Fractional Terms (Negatives) (Level 2)'. Part of a broader unit on 'Algebra Basic Concepts - Advanced'

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**1** What does this equation become when  $c=4, y=-2, r=2$

<b>a</b> $\frac{4 + 4 + 2 + 2}{2 + -2}$	<b>b</b> $\frac{4 \cdot 4 + 2 \cdot 2}{2 \cdot -2}$
<b>c</b> $4^4 + 2^{-2}$	<b>d</b> $\frac{4 - 4 - 2 - 2}{2 - -2}$
<b>e</b> $\frac{4^4 + 2^2}{2^{-2}}$	<b>f</b> $4 - 4 + 2 - -2$

$$\frac{4c + 2r}{2y}$$

**2** What does this equation become when  $n=4, b=-4, c=-3$

<b>a</b> $3 - 4 + 3 - -4$	<b>b</b> $\frac{3 - 4 - 4 - -3}{3 - -4}$
<b>c</b> $\frac{3 \cdot 4 - 4 \cdot -3}{3 \cdot -4}$	<b>d</b> $\frac{3^4 + 4^{-3}}{3 - 4}$
<b>e</b> $\frac{3 + 4 + 4 + -3}{3 + -4}$	<b>f</b> $\frac{3 \cdot 4 + 4 \cdot -3}{3 \cdot -4}$

$$\frac{3n - 4c}{3b}$$

**3** What does this equation become when  $x=3, c=-3, r=5$

<b>a</b> $\frac{4^3 + 6^5}{6^{-3}}$	<b>b</b> $\frac{4 \cdot 3 - 6 \cdot 5}{6 \cdot -3}$
<b>c</b> $\frac{4 - 3 - 6 - 5}{6 - -3}$	<b>d</b> $\frac{4 + 3 + 6 + 5}{6 + -3}$
<b>e</b> $4 - 3 + 6 - -3$	<b>f</b> $\frac{4 \cdot 3 + 6 \cdot 5}{6 \cdot -3}$

$$\frac{4x - 6r}{6c}$$

**4** What does this equation become when  $r=-4, p=-3, z=-5$

<b>a</b> $\frac{5 + -4 + 2 + -5}{5 + -3}$	<b>b</b> $5 - -4 + 5 - -3$
<b>c</b> $\frac{5^{-4} + 2^{-5}}{5^{-3}}$	<b>d</b> $\frac{5 - -4 - 2 - -5}{5 - -3}$
<b>e</b> $\frac{5 \cdot -4 + 2 \cdot -5}{5 \cdot -3}$	<b>f</b> $5^{-4} + 5^{-3}$

$$\frac{5r + 2z}{5p}$$

**5** What does this equation become when  $m=-4, z=3, r=-3$

<b>a</b> $\frac{6 \cdot -4 + 2 \cdot -3}{2 \cdot 3}$	<b>b</b> $6^{-4} + 2^3$
<b>c</b> $\frac{6 + -4 + 2 + -3}{2 + 3}$	<b>d</b> $\frac{6 - -4 - 2 - -3}{2 - 3}$
<b>e</b> $\frac{6^{-4} + 2^{-3}}{2^3}$	<b>f</b> $6 - -4 + 2 - 3$

$$\frac{6m + 2r}{2z}$$

**6** What does this equation become when  $c=5, x=3, d=-5$

<b>a</b> $\frac{4 - 5 - 4 - -5}{3 - 3}$	<b>b</b> $\frac{4 + 5 + 4 + -5}{3 + 3}$
<b>c</b> $4 - 5 + 3 - 3$	<b>d</b> $\frac{4^5 + 4^{-5}}{3^3}$
<b>e</b> $4^5 + 3^3$	<b>f</b> $\frac{4 \cdot 5 + 4 \cdot -5}{3 \cdot 3}$

$$\frac{4c + 4d}{3x}$$

**7** What does this equation become when  $z=-3, d=-4, y=-2$

<b>a</b> $\frac{4 \cdot -3 + 2 \cdot -2}{4 \cdot -4}$	<b>b</b> $\frac{4^{-3} + 2^{-2}}{4^{-4}}$
<b>c</b> $4 - -3 + 4 - -4$	<b>d</b> $\frac{4 - -3 - 2 - -2}{4 - -4}$
<b>e</b> $\frac{4 + -3 + 2 + -2}{4 + -4}$	<b>f</b> $4^{-3} + 4^{-4}$

$$\frac{4z + 2y}{4d}$$