

Algebra Review 3

1. Factor the following:

(a) $2x^2 + 7x + 3$

(b) $3y^2 + 13y + 4$

(c) $4r^2 + r - 3$

(d) $8m^2 - 10m - 3$

(e) $5a^2 - 6 - 7a$

(f) $4x^2 - 4$

(g) $2 + 7b + 6b^2$

2. Find the zeros of the above polynomials.

3. Perform the following indicated operations:

(a) $\frac{1}{3} + \frac{7}{8}$

(b) $\frac{a}{b} + \frac{c}{d}$

(c) $\frac{2}{x} + \frac{x}{x-1}$

(d) $\frac{x+1}{x+1} - \frac{x+2}{x-1}$

(e) $\frac{x^2}{x^2+1} + \frac{x+2}{x^2+2}$

4. Find the error in each of the following simplifications:

(a) $\frac{2x}{2x+1} = \frac{x}{x+1}$

(b) $\frac{a-b}{b-a} = 1$

(c) $\frac{a-b}{a+b} = -1$

(d) $\frac{a+b}{b} = a$