

1. Assume that a , b , and c are greater than zero, and that $a < b < c$. Insert the correct symbol ($<$, $>$, or $=$) and briefly but clearly explain your reasoning.

a) $\frac{a}{b+2} \times \frac{b}{c}$ 1

b) $\frac{b+5}{a} \div \frac{a}{c+3}$ 1

c) $\frac{b+4}{a} - \frac{b}{c}$ 0

d) $\frac{a}{2b+1} + \frac{c}{a} + \frac{3c}{b}$ 3

e) $\frac{c}{b} + \frac{c}{a}$ 2

f) $3 - \frac{b}{a} - \frac{c}{b}$ 1

g) $\frac{a}{3c}$ $\frac{c}{c-a}$

h) $\frac{c}{b-a}$ 1

i) $\frac{a}{b} - \frac{a}{c} - \frac{c}{a}$ 0

j) $\frac{2b}{a} + \frac{c}{b}$ 3

k) $\frac{a}{c} - \frac{c}{a}$ 0

l) $4 - \frac{2c}{b}$ 2

m) $\frac{a}{b+2} \times \frac{b}{c}$ $\frac{a}{b+2}$

n) $\frac{b+5}{a} \div \frac{a}{3c}$ 1

o) $\frac{b}{c} - \frac{b+1}{a}$ 0

p) $\frac{c+2}{a} + \frac{3c}{b}$ 3