Upper and lower bounds calculations

a) If $a = 32$ and $c = 19$ have been rounded to the integer find the lowest possible value of $a + c$.

b) If $y = 7.2$ and $r = 1.1$ have been rounded to 1 decimal place find the highest possible value of $y \times r$.

c) If $u = 99$ and $k = 82$ have been rounded to the nearest integer find the highest possible value of $u \div k$ (to 3 sf).

d) If $z = 8.7$ and $s = 1.5$ have been rounded to 1 decimal place find the lowest possible value of $z - s$.

e) If $j = 52$ and $e = 32$ have been rounded to 2 significant figures find the lowest possible value of $j + e$.

f) If $v = 4.1$ and $b = 5.7$ have been rounded to 2 sig figs find the highest possible value of $v \div b$ (to 3 sf).

g) If $w = 20$ and $t = 40$ have been rounded to the nearest 10 find the highest possible value of $w \times t$.

h) If $n = 7.23$ and $m = 4.25$ have been rounded to 2 decimal places find the highest possible value of $n - m$.

i) If $f = 17$ and $p = 38$ have been rounded to the nearest integer find the highest possible value of $f \div p$ (to 3 sf).

j) If $q = 500$ and $x = 300$ have been rounded to the nearest hundred find the lowest possible value of $q + x$.

k) If $h = 9.9$ and $g = 8.8$ have been rounded to 1 decimal place find the highest possible value of $h \times g$.

l) If $s = 4$ and $v = 5$ have been rounded to 1 significant figure find the lowest possible value of $s - v$.

m) If $u = 22.4$ and $z = 86.5$ have been rounded to 3 significant figures find the highest possible value of $u + z$.

n) If $e = 99$ and $t = 38$ have been rounded to the nearest integer find the lowest possible value of $e \div t$ (to 3 sf).

o) If $r = 9.8$ and $m = 6.8$ have been rounded to 2 sig figs find the highest possible value of $r \times m$.

p) If $f = 8.6$ and $n = 7.2$ have been rounded to 1 decimal place find the lowest possible value of $f - n$.

q) If $b = 280$ and $w = 170$ have been rounded to 2 sig figs find the lowest possible value of $b \div w$ (to 3 sf).

r) If $a = 9300$ and $k = 5200$ have been rounded to 2 significant figures find the highest possible value of $a + k$.

s) If $g = 8.44$ and $p = 9.90$ have been rounded to 3 significant figures find the highest possible value of $g \times p$.

t) If $j = 2.00$ and $y = 8.03$ have been rounded to 3 significant figures find the lowest possible value of $j - y$.

u) $a = 42$ correct to 2 sig figs. $b = 24$ correct to 2 sig figs. $c = 14$ correct to 2 sig figs.
Work out the lower bound for the value of y. Give your answer correct to 2 sig figs. $y = \dfrac{2a}{b - c}$

v) Correct to 2 significant figures, $a = 58$, $b = 28$ and $c = 18$.
Calculate the upper bound for the value of $\dfrac{a}{b - c}$