

Section 6-3: Verbal Problems Involving Ratio

1. 069913a, P.I. A.N.5
A total of \$450 is divided into equal shares. If Kate receives four shares, Kevin receives three shares, and Anna receives the remaining two shares, how much money did Kevin receive?
[A] \$150 [B] \$100
[C] \$200 [D] \$250
2. 069915a, P.I. A.N.5
During a recent winter, the ratio of deer to foxes was 7 to 3 in one county of New York State. If there were 210 foxes in the county, what was the number of deer in the county?
[A] 280 [B] 147 [C] 490 [D] 90
3. 089931a, P.I. A.N.5
The profits in a business are to be shared by the three partners in the ratio of 3 to 2 to 5. The profit for the year was \$176,500. Determine the number of dollars each partner is to receive.
4. 010014a, P.I. A.N.5
Sterling silver is made of an alloy of silver and copper in the ratio of 37:3. If the mass of a sterling silver ingot is 600 grams, how much silver does it contain?
[A] 200 g [B] 48.65 g
[C] 450 g [D] 555 g
5. 010210a, P.I. A.N.5
There are 357 seniors in Harris High School. The ratio of boys to girls is 7:10. How many boys are in the senior class?
[A] 210 [B] 117 [C] 107 [D] 147
6. 010331a, P.I. A.N.5
At the Phoenix Surfboard Company, \$306,000 in profits was made last year. This profit was shared by the four partners in the ratio 3:3:5:7. How much *more* money did the partner with the largest share make than one of the partners with the smallest share?

[1] A[2] C

[4] \$52,950, \$35,300, and \$88,250 and an appropriate method is shown, such as $3x + 2x + 5x = \$176,500$.

[3] A correct equation is set up or multiplied by correct fractional values $\frac{3}{10}$, $\frac{2}{10}$, and $\frac{5}{10}$,

but a computational mistake is made, and three appropriate values are found.

or [3] An appropriate method is shown, but not all three values are found.

[2] The equation is set up correctly, but numerous computational mistakes are made, and three appropriate values are found.

or [2] An incorrect equation is shown, but three appropriate values are found.

or [2] An appropriate equation is shown but is solved only for x (17,650).

[1] The equation is set up correctly, but no appropriate values are found.

or [1] Three correct answers are found, and no work is shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[3] incorrect procedure.

[4] D[5] D

[4] \$68,000, and appropriate work is shown.

[3] \$119,000 and \$51,000, and appropriate work is shown, but the answers are not subtracted to find the difference.

or [3] Appropriate work is shown, but one computational error is made.

[2] Appropriate work is shown, but more than one computational error is made.

[1] The value for one share (\$17,000) is found, but no further correct work is shown.

or [1] \$68,000, but no work is shown.

[0] \$17,000 or \$119,000 or \$51,000, and no work is shown.

or [0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an

[6] obviously incorrect procedure.