

Types of problems:

Note: The following samples illustrate the types of problems, not the degree of difficulty.

Multiple choice problems:

1. A package weighing 15 pound is sent by parcel post. It costs 80 cents for the first 10 pound and 95 cents for each additional pound. What is the total cost for the package?

- a) \$8.75 b) \$10.15 c) \$12.75 d) \$13.25 e) \$14.50

2. If x can be expressed as y^2 , where y is a positive integer, then define $[x] = \frac{y^3}{2}$, for

example, $[9] = \frac{3^3}{2} = 13.5$ since $9 = 3^2$. If $[m] = 4$, what is the value of $[4m]$?

- a) 12 b) 24 c) 32 d) 48 e) 64

Write-in problems:

1. What is the cost for labor on a repair, at \$18 per hour, for a job requiring $1\frac{3}{4}$ hours?

2. Find the solution of the following inequality, where $[x]$ is defined to be the greatest integer that is less than or equal to x : $4[x]^2 - 36[x] + 45 < 0$