

Answer on Question # 43185, Math, Combinatorics | Number Theory

Task:

Program Cost	\$14,000	\$13,000	\$14,500	\$16,000
Administration Fee	\$145	\$170	\$140	\$130
HR Staff Needed	3	4	4	3
Hours to Complete Training	25	28	25	30

A human resource manager is considering replacing a traditional training program with a new virtual training program for 10 new employees. The salary of the human resource (HR) staff is \$20 per hour, and the salary of new employees is \$12.50 per hour.

Assuming the quality of programs is equal, which is the most cost efficient?

Solution:

For the first program:

$$14000 + 145 + 3 * 20 * 25 + 10 * 12.5 * 25 = 18770$$

For the second program:

$$13000 + 170 + 4 * 20 * 28 + 10 * 12.5 * 28 = 18910$$

The third:

$$14500 + 140 + 4 * 20 * 25 + 10 * 12.5 * 25 = 19765$$

The fourth:

$$16000 + 130 + 3 * 20 * 30 + 10 * 12.5 * 30 = 21680$$

Answer:

The first is the most cost efficient. (The smallest number)