

## 8.EE Fixing the Furnace

### Task

Ivan's furnace has quit working during the coldest part of the year, and he is eager to get it fixed. He decides to call some mechanics and furnace specialists to see what it might cost him to have the furnace fixed. Since he is unsure of the parts he needs, he decides to compare the costs based only on service fees and labor costs. Shown below are the price estimates for labor that were given to him by three different companies. Each company has given the same time estimate for fixing the furnace.

- Company A charges \$35 per hour to its customers.
- Company B charges a \$20 service fee for coming out to the house and then \$25 per hour for each additional hour.
- Company C charges a \$45 service fee for coming out to the house and then \$20 per hour for each additional hour.

For which time intervals should Ivan choose Company A, Company B, Company C? Support your decision with sound reasoning and representations. Consider including equations, tables, and graphs.



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