Linear Systems: Day 1 – Choosing Your Equations

Each problem will require two equations to solve it. The equations that are needed to solve each problem appear at the bottom of the handout. Match the equations with the problems and compare your answers with another student.
Note: There are more equations than problems.

Problem A:
Yasser is renting a car. Zeno Car Rental charges $45 for the rental of the car and $0.15 per kilometre driven. Erdos Car Rental charges $35 for the rental of the same car and $0.25 per kilometre driven. Which company should Yasser choose to rent the car from?

Equations:

Problem B:
The school council is trying to determine where to hold the athletic banquet. The Algebra Ballroom charges an $800 flat fee and $60 per person. The Geometry Hall charges a $1000 flat fee and $55 per person. Which location should the school council select for the athletic banquet?

Equations:

Problem C:
The yearbook club is considering two different companies to print the yearbook. The Descartes Publishing Company charges a flat fee of $475 plus $4.50 per book. School Memories charges a flat fee of $550 plus $4.25 per book. Which company should the yearbook club select to print this year's yearbook?

Equations:

Problem D:
Tony is throwing a pizza party and can't decide where he can the best deal on his pizzas. Papa Larry's charges $15 for a large pizza plus $1 per topping. The Pizza Station charges $11 for a large pizza plus $1.50 per topping. Where should Tony order his pizzas from?

Equations:

EQUATIONS:

1. $y = 4.50 + 475x$	2. $60 + 800x = y$	3. $y = 1000 + 55x$	4. $x = 45 + 0.15x$
5. $y = 1000x + 55$	6. $y = 45 + 0.15x$	7. $y = 11x + 1.50$	8. $y = 1.50x + 11$
9. $y = 4.25x + 550$	10. $y = 550x + 4.25$	11. $y = 800 + 60x$	12. $y = 15x + 1$
13. $y = 0.25x + 35$	14. $y = 4.50x + 475$	15. $y = 35x + 0.25$	16. $y = x + 15$