

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Algebra I

Directions: Form let statement(s), set up an algebraic equation, and solve algebraically.

1. John weighs 40 pounds and sits 3 feet from the fulcrum of a seesaw. Tom sits 4 feet from the fulcrum. How much does Tom weigh?
2. Jane sits 5 feet from the fulcrum of a seesaw. Joey sits 6 feet from the fulcrum and weighs 60 pounds. How much does Jane weigh?
3. Linda and Joanne sit 10 feet apart on a seesaw. If Linda weighs 80 lbs. and Joanne weighs 120 lbs., how far is the fulcrum from each girl.
4. The diameter of a pulley is 8 in. and rotates at 400 rpm while attached to a 4 in. diameter pulley. How fast is the second pulley spinning?
5. If a 5 in. radius pulley is rotating at 240 rpm, and is attached to a 6 in. diameter pulley. How fast is the second pulley spinning?
6. If a 4 cm pulley is rotating at 360 rpm, and is attached to a pulley rotating at 120 rpm, how big is the second pulley?