

27-41. Para todas las figuras siguientes son válidos los siguientes datos:

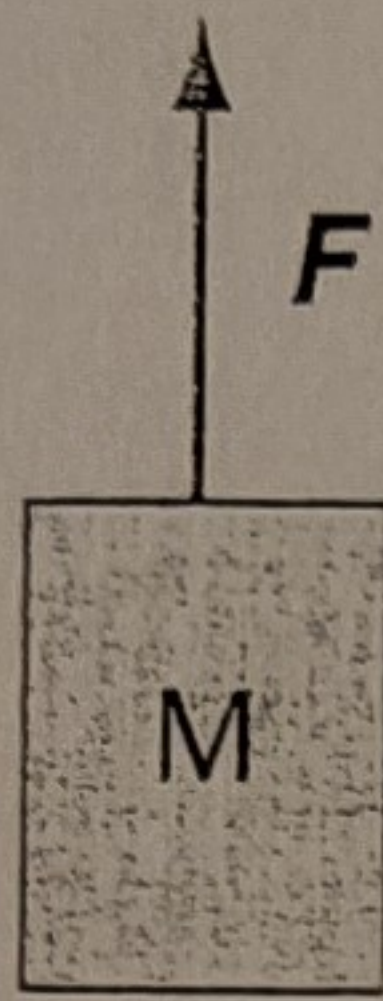
$$M = 6 \text{ kg} \quad m = 2 \text{ kg} \quad F = 75 \text{ N} \quad \mu = 0,4$$

$$\sin \alpha = 0,6 \quad \cos \alpha = 0,8 \quad g = 10 \text{ m/s}^2$$

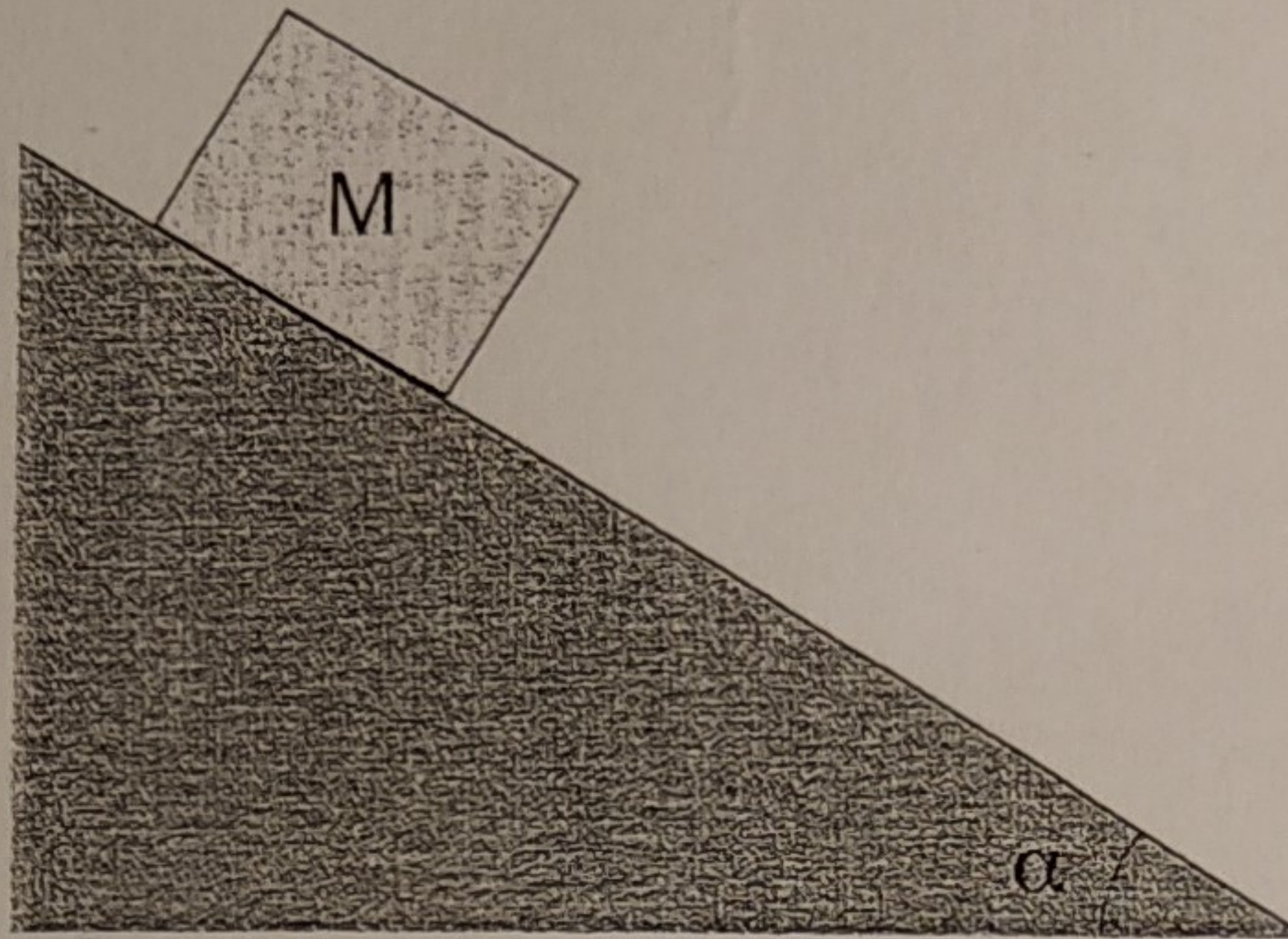
Se supone que las poleas que aparecen en algunas de las figuras tienen masa despreciable y que sólo existe rozamiento allí donde aparece la letra griega μ .

Calcula, en cada caso, la aceleración del sistema representado en la figura y la tensión del hilo, si lo hay.

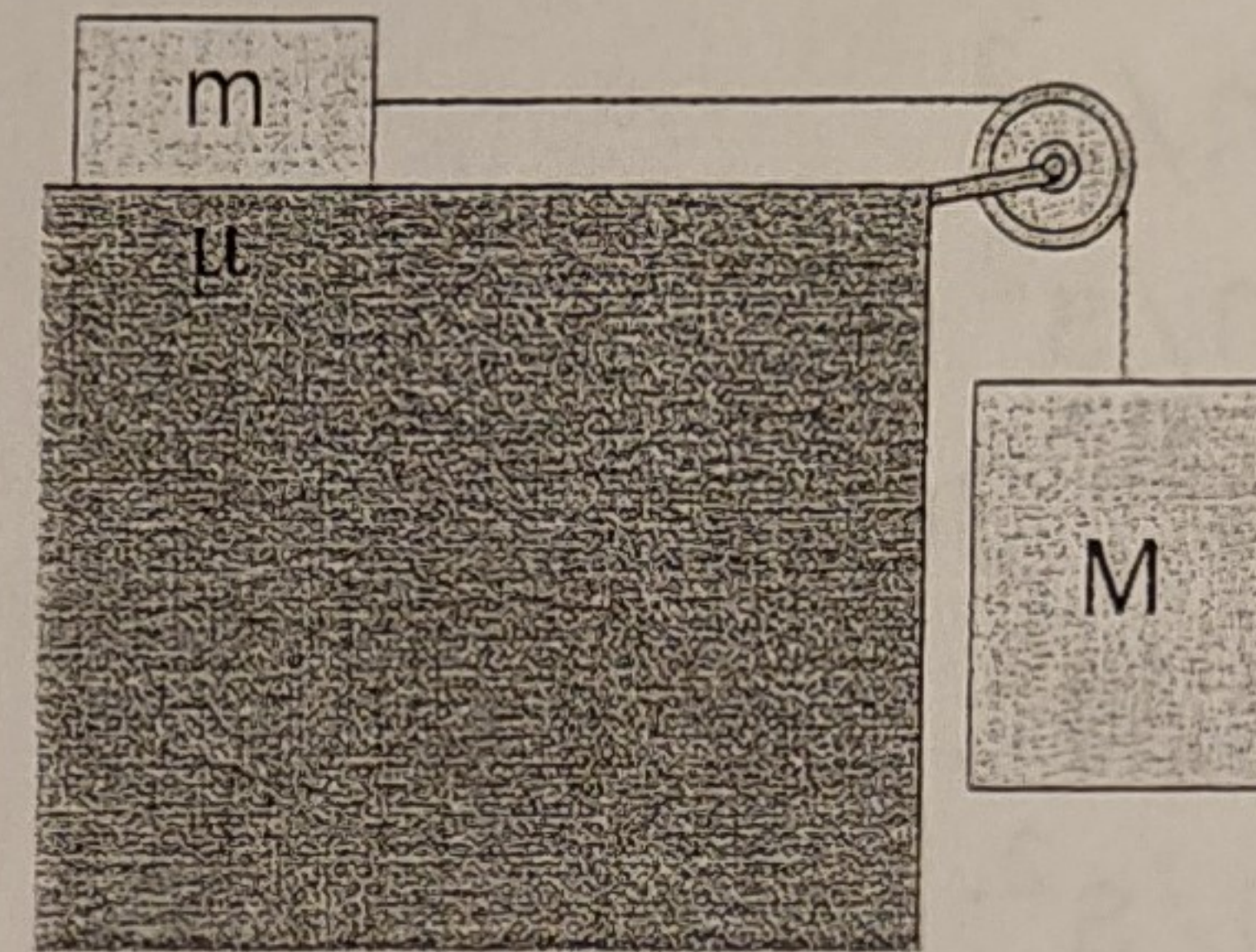
27



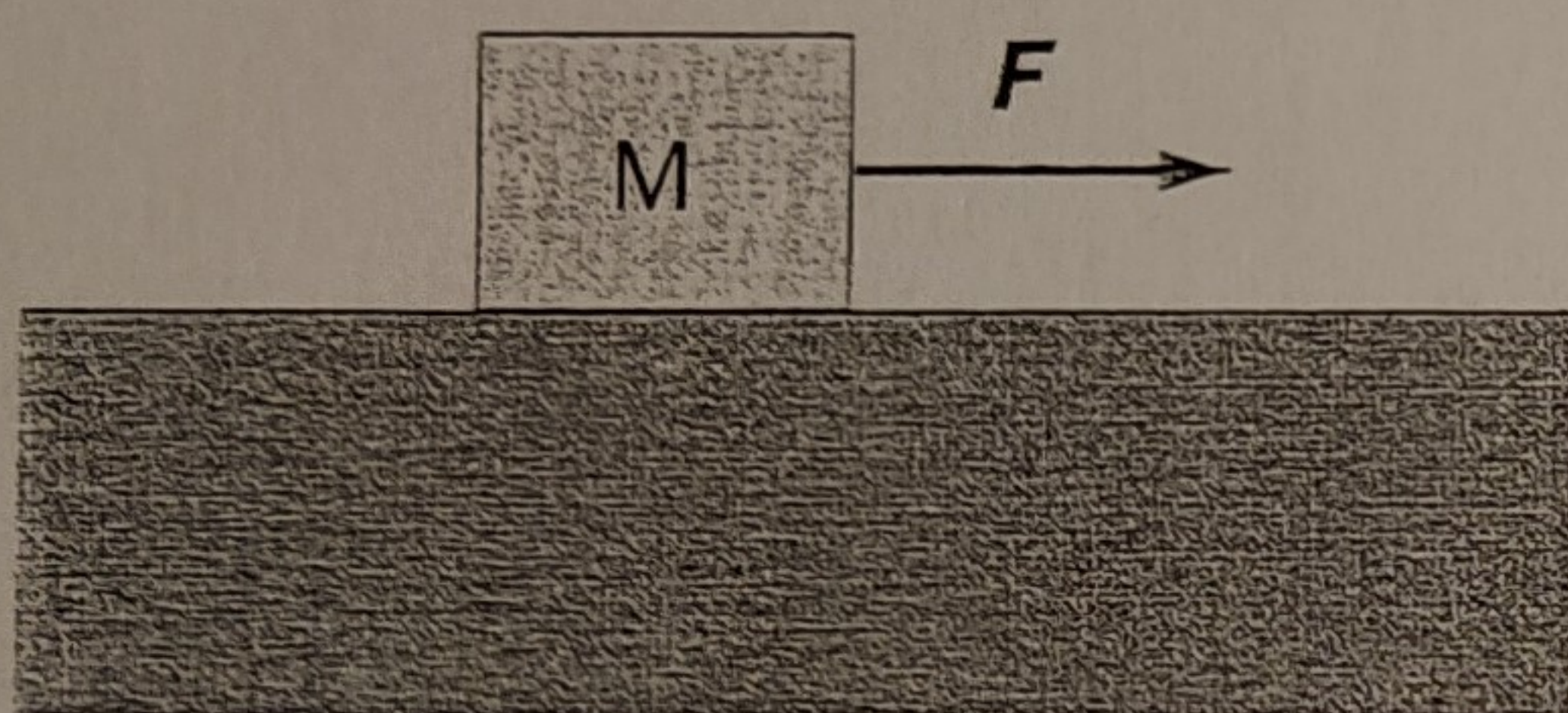
32



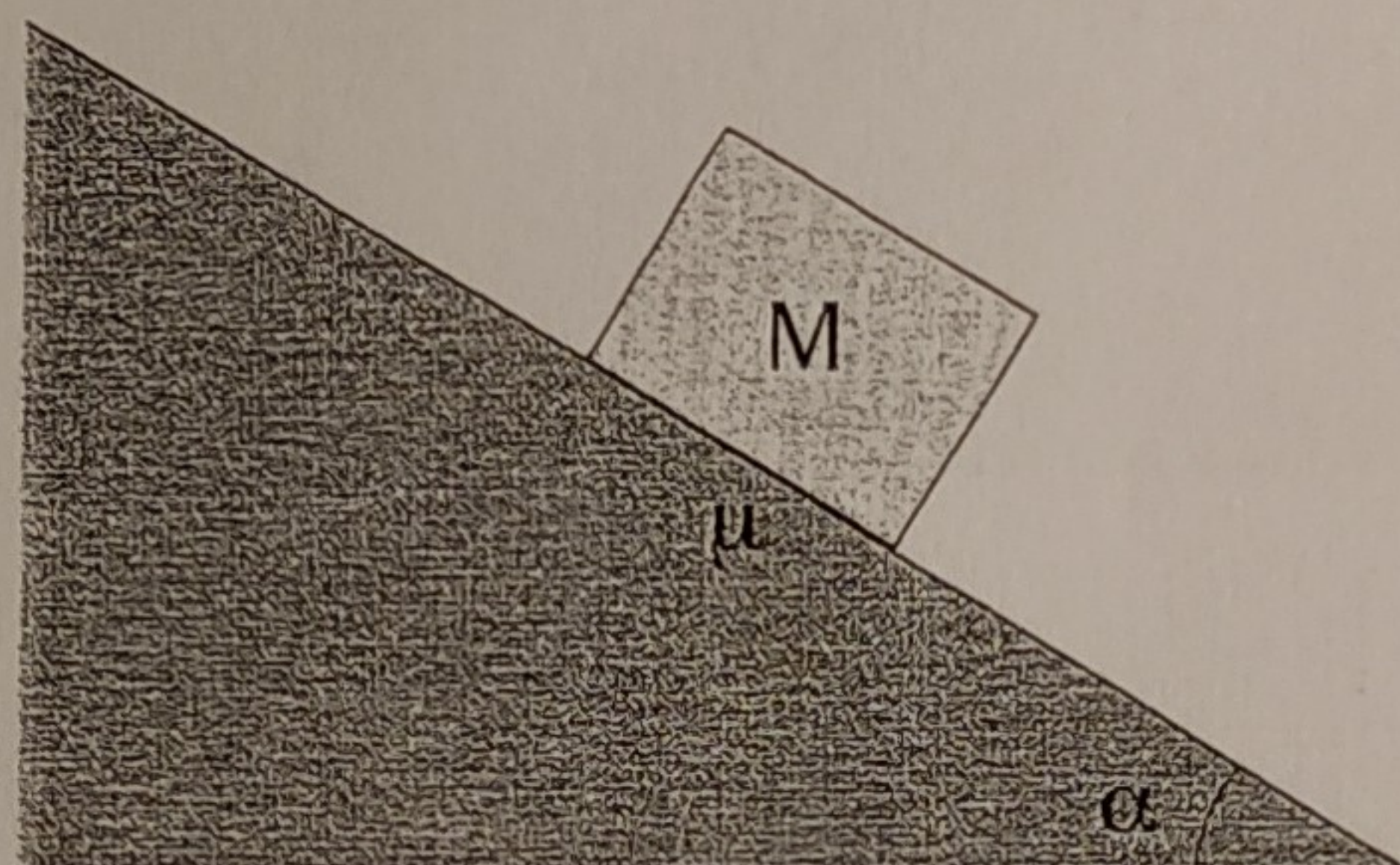
37



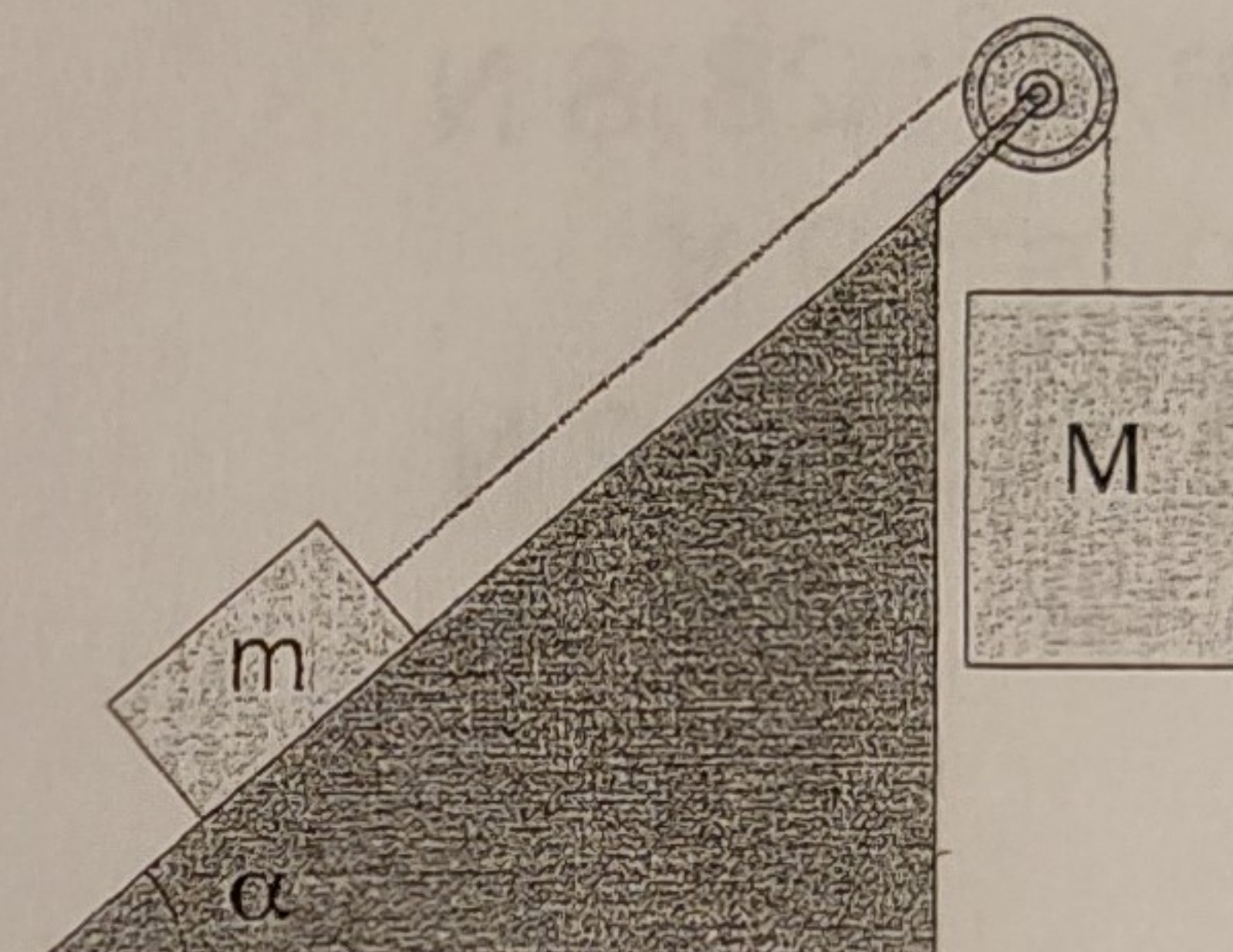
28



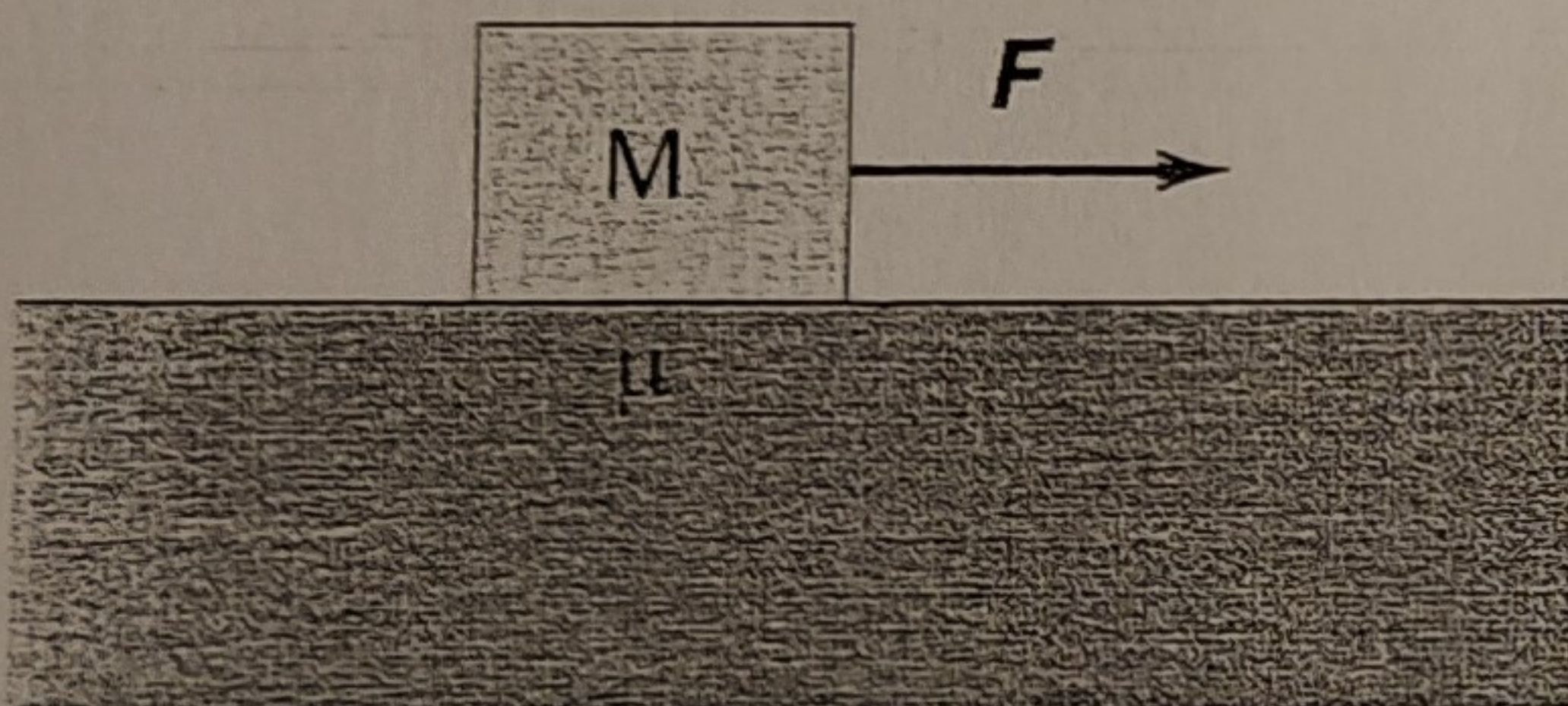
33



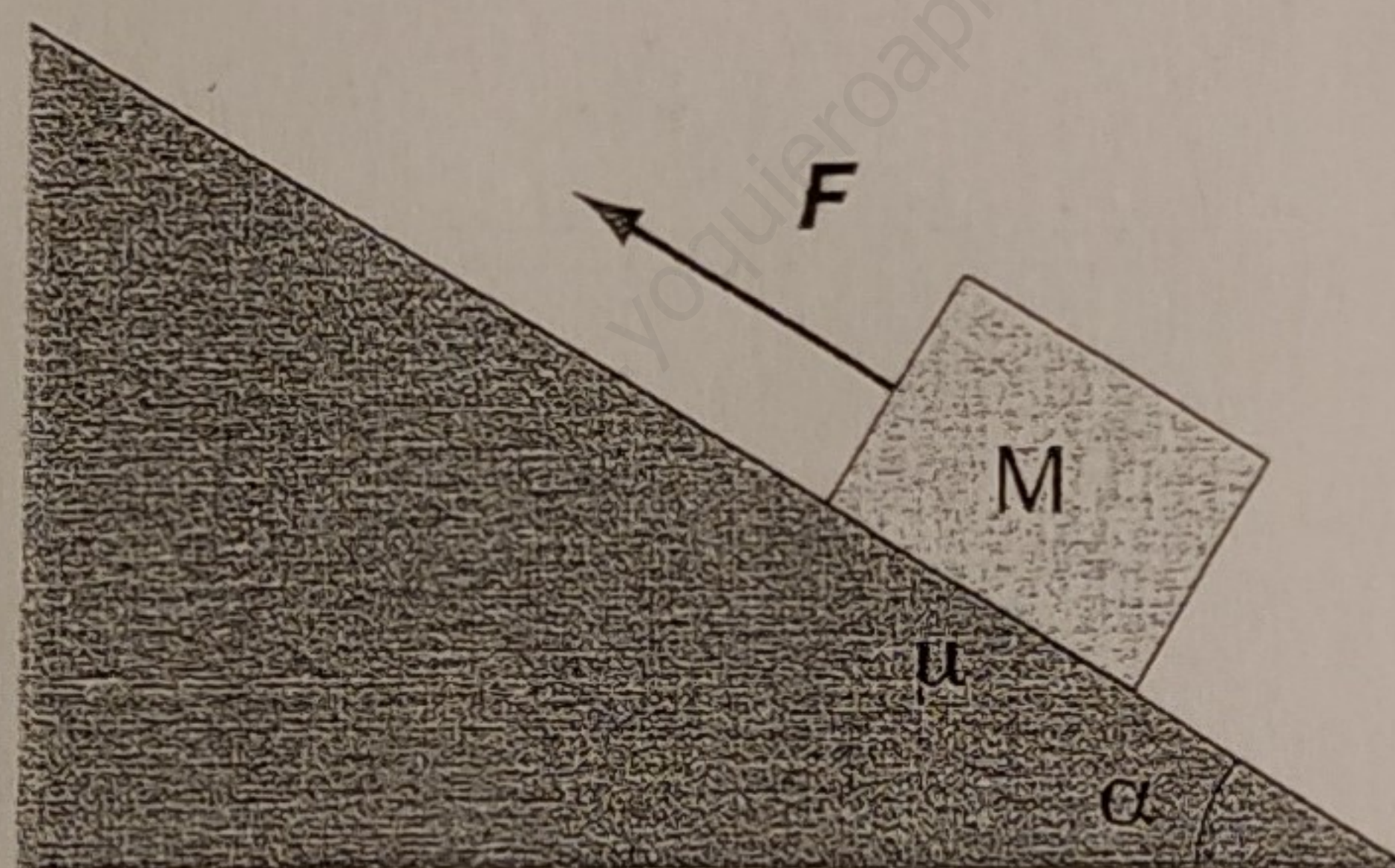
38



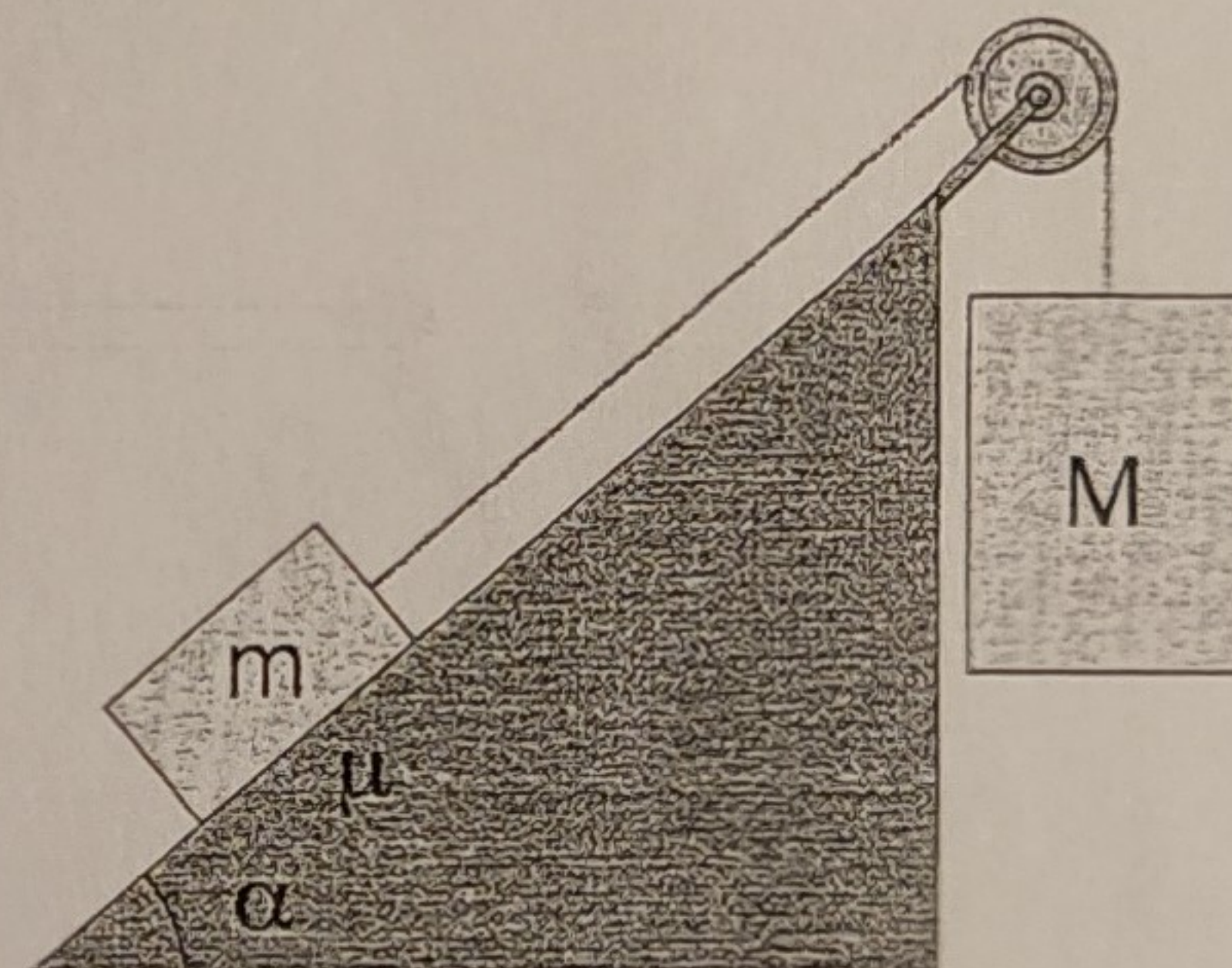
29



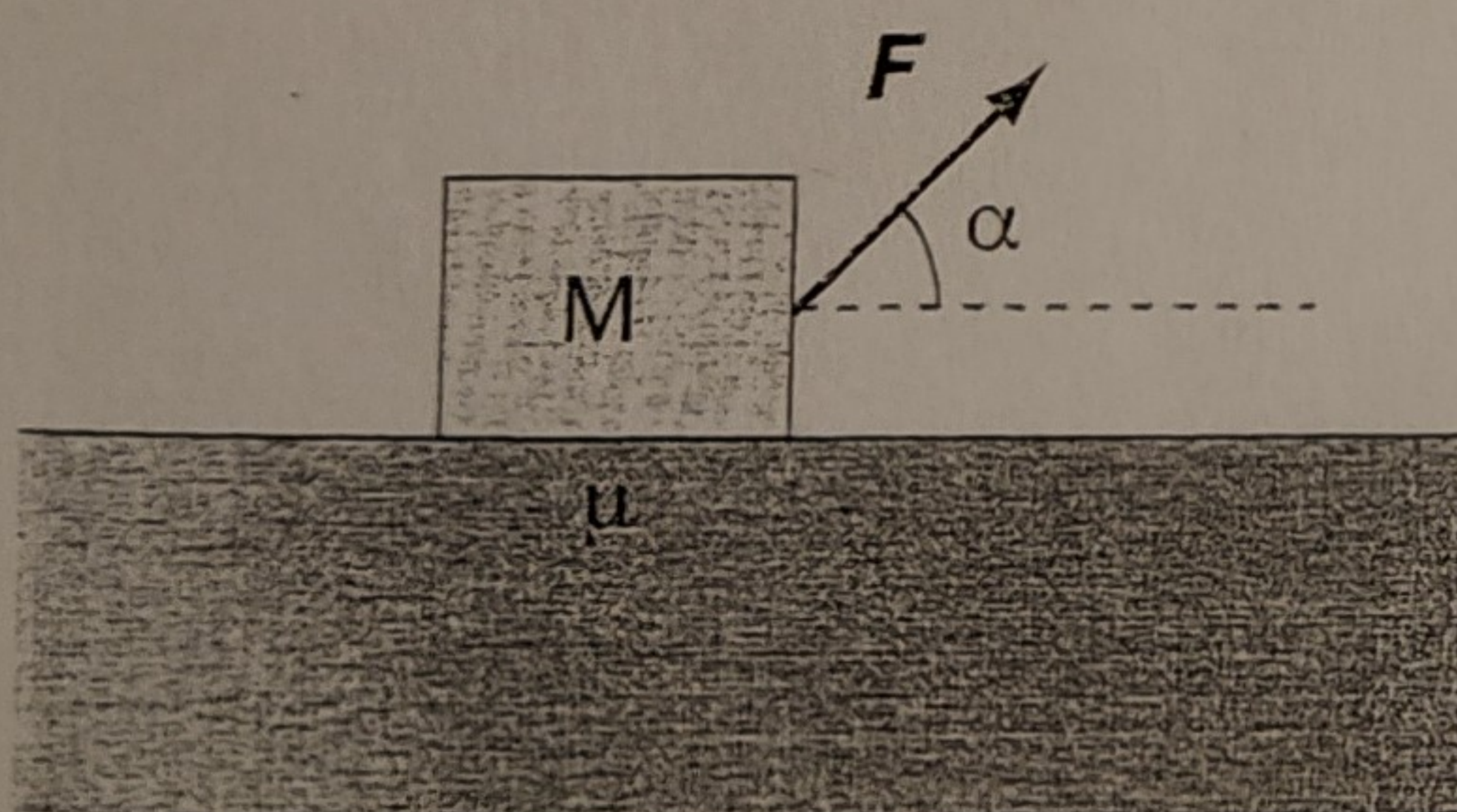
34



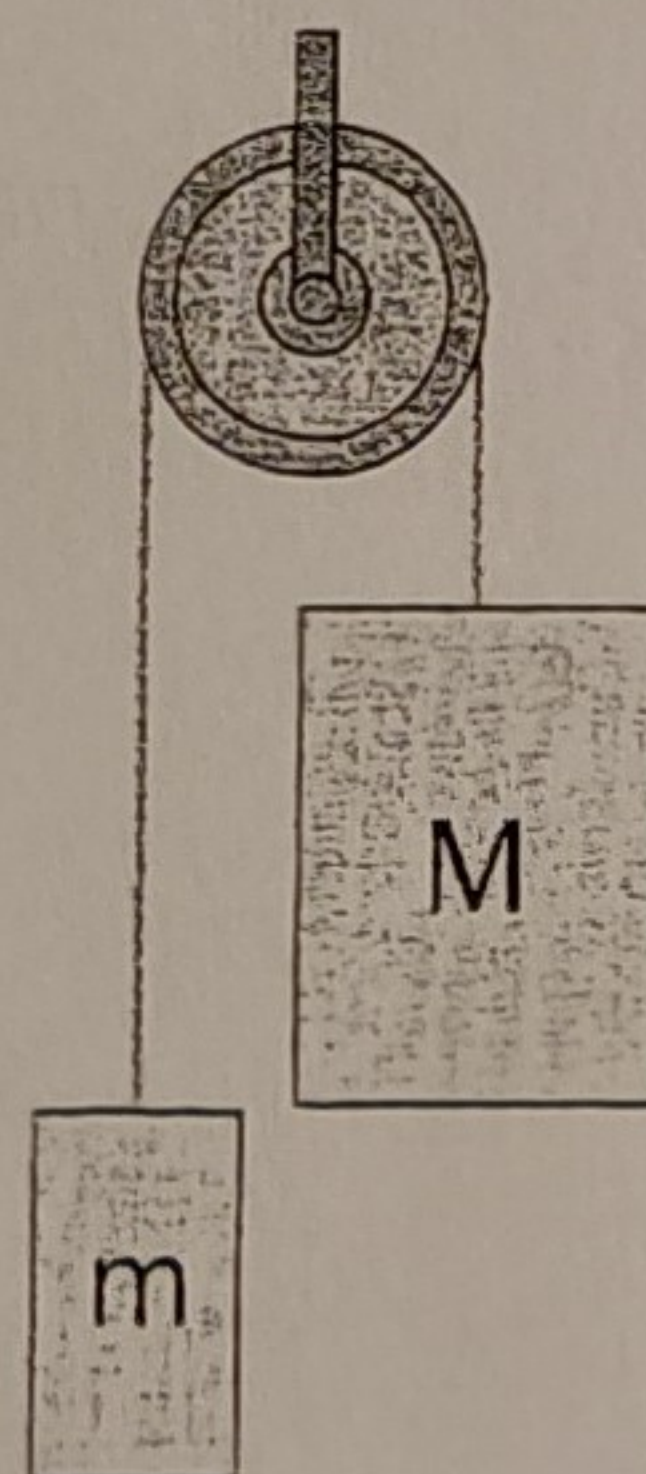
39



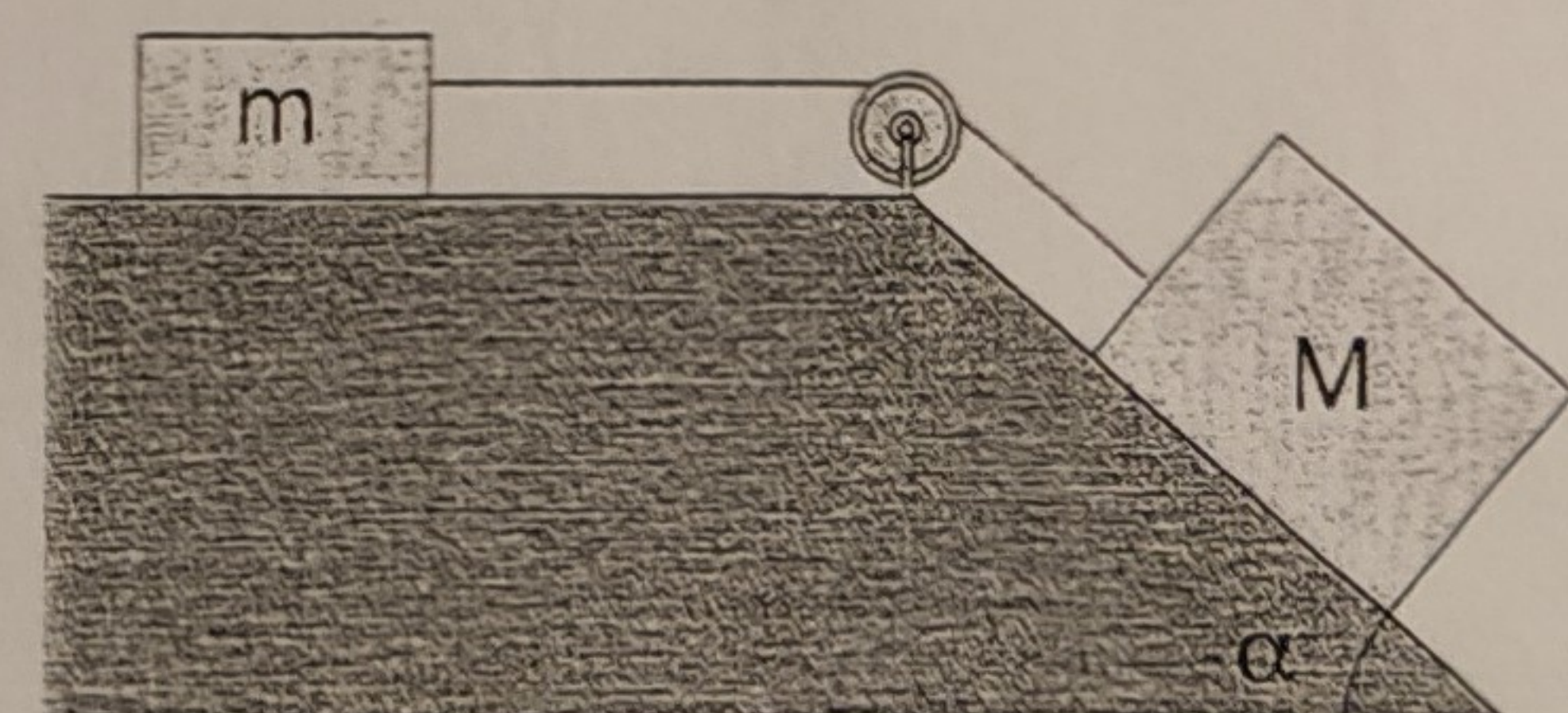
30



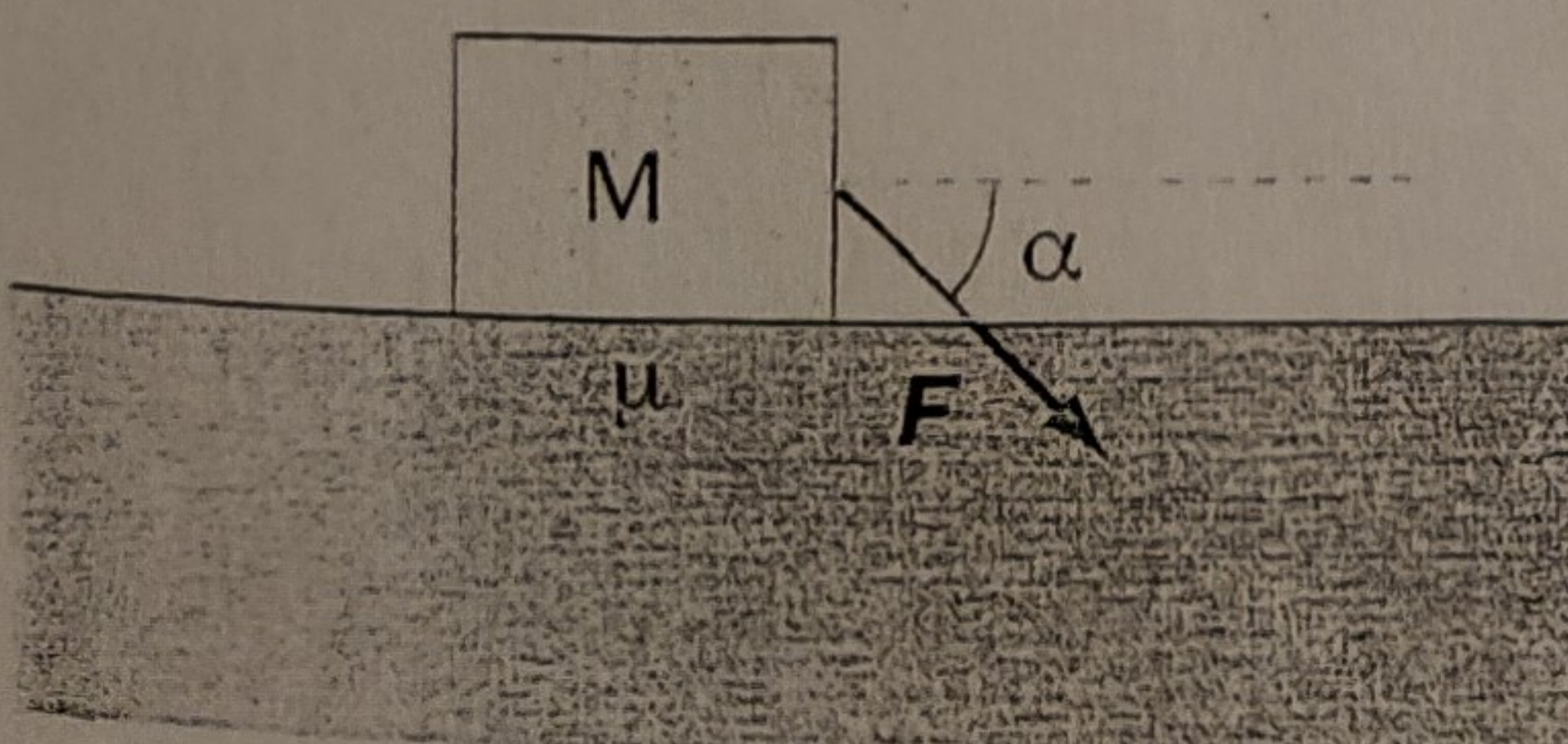
35



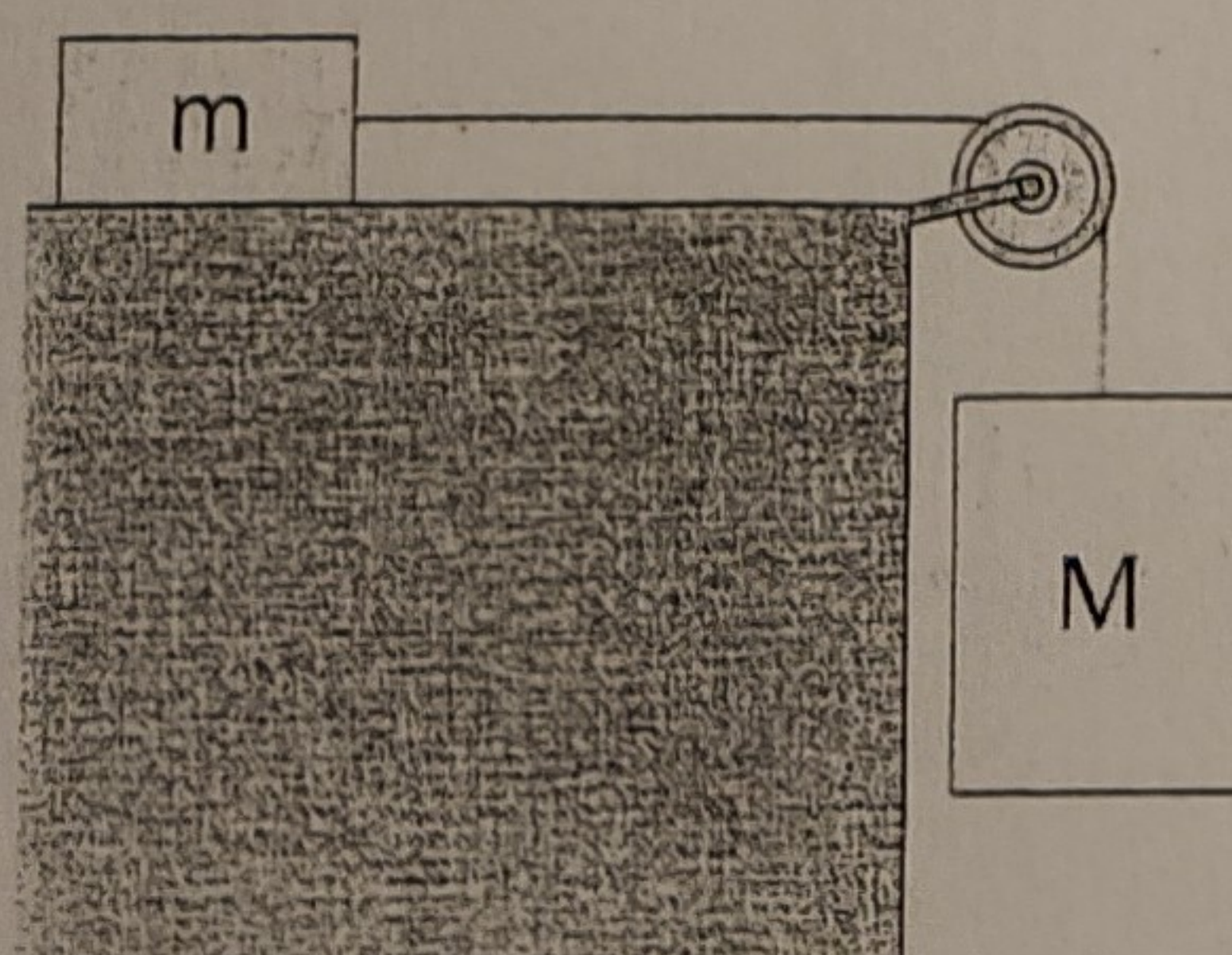
40



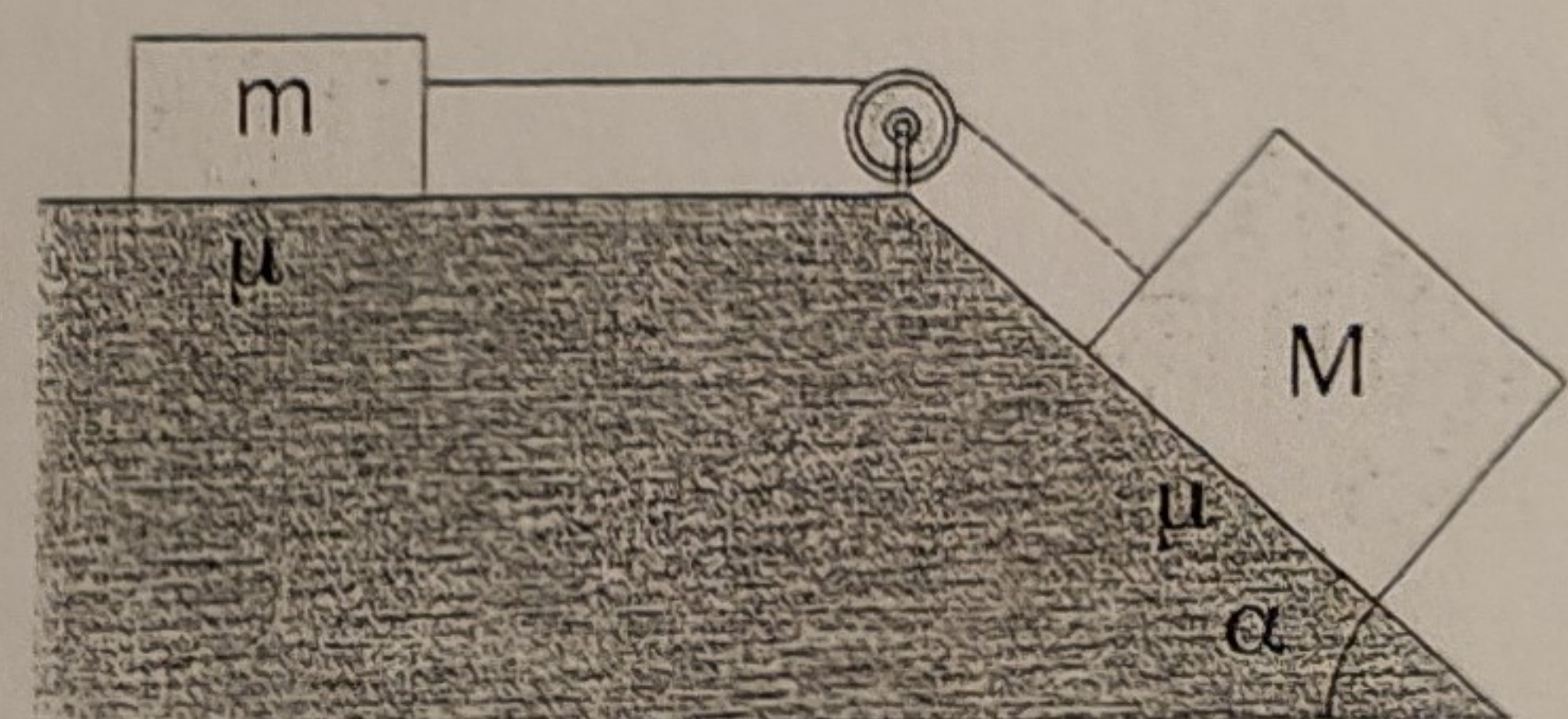
31



36



41



- 27. $2,5 \text{ m/s}^2$
- 28. $12,5 \text{ m/s}^2$
- 29. $8,5 \text{ m/s}^2$
- 30. 9 m/s^2
- 31. 3 m/s^2
- 32. 6 m/s^2
- 33. $2,8 \text{ m/s}^2$
- 34. $3,3 \text{ m/s}^2$
- 35. 5 m/s^2 ; 30 N
- 36. $7,5 \text{ m/s}^2$; 15 N
- 37. $6,5 \text{ m/s}^2$; 21 N
- 38. 6 m/s^2 ; 24 N
- 39. $5,2 \text{ m/s}^2$; 28,8 N
- 40. $4,5 \text{ m/s}^2$; 9 N
- 41. $1,1 \text{ m/s}^2$; 10,2 N