1. (a) $F = 2,4N$

    (b) $F = 3,6N$

2. (a) $P_T = 6\bar{9}0N$

    (b) $P_L = 1\bar{2}0N$

    (c) $P_J = 1\bar{8}00N$

3. (a) $F_F = 3\bar{5}00N$

    (b) $t = 5,9s$

4. $F_a t = 0,25N$

5. (a) $F = 6,9 \times 10^5 N$

    (b) $F = 2,4 \times 10^6 N$

6. (a) $T = 4,5 \times 10^4 N$ ou $T = 5 \times 10^4 N$

    (b) $T = 3,2 \times 10^4 N$ ou $T = 3 \times 10^4 N$

7.

8. $F_a t = \bar{1}0N$

9.

10. (a) Não.

    (b) $F = 70N$

    (c) $F = 55N$

    (d) $F = 86N$

    (e) $F = \bar{5}0N$

11. $d = 40m$

12. $F = \bar{3}00N$

13. $W = 38J$

14.

15. $E_C = 3 \times 10^{14} J$

16. $h = 0,26m$

17. $\Delta x = 0,12m$

18. (a) $v = 5,7m/s$

    (b) $v = 7,2m/s$

19. (a) $m = 5\bar{0}00kg$

    (b) $p = 5,0 \times 10^4 kg.m/s$

20. $p = 2\bar{5}00kg.m/s$ e $E_C = 6,2 \times 10^5 J$