Chapter 3, Statics of a Rigid Body

Remarks: See §3.1.8 and §3.1.9, page 68 till 71

Hints:

- 1. The line of action of F_b (force through B) goes through the intersection of the Lines of action of F and F_a . You can solve this with a force polygon.
- 2. The Line of action of F_c (force through C) goes through the intersection of the Lines of action of F and F_a . A graphical solution is not immediately possible. First you've to calculate F_a out of the momentum around C.

Answers:

1.
$$F_a = 20\sqrt{5} \text{ kN } (\checkmark); F_b = 20\sqrt{2} \text{ kN } (\searrow)$$

2.
$$F_a = 60\sqrt{5} \text{ kN } (\nearrow); F_c = 60\sqrt{10} \text{ kN } (\checkmark)$$

 $F_c = 50 \text{ kN } (\nearrow)$

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