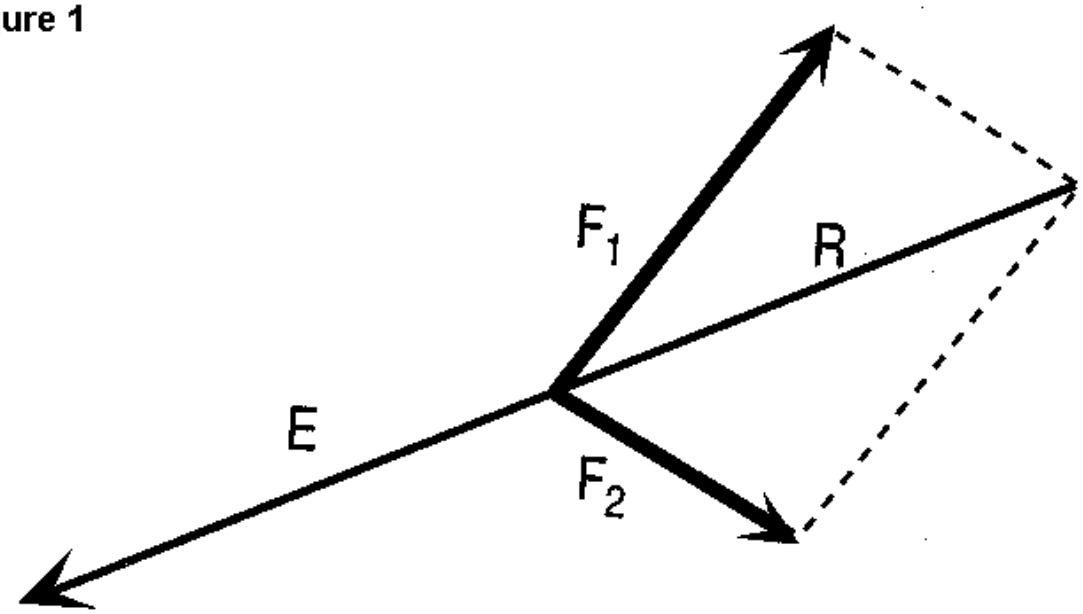
Figure 1



If two forces act on a body, each force exerts an influence on it. Each separate effect produces a total effect, which we can represent as a vector: we call this vector the 'resultant'. Thus, we can draw a parallelogram, in which the diagonal represents the resultant of the two forces. If we add E to the system, it produces an equilibrium, so that we say E is the equilibrant.

→ *Turn this text into the passive!*

→ *Fill in the blanks with a preposition* (or [Ø])

Brass is made ... zinc and copper. Painting iron prevents it ... rusting. The properties of steel depend ... the amount of carbon it contains. Quenching consists ... cooling metals in water . Cast iron is not capable ... resisting impacts. Copper can be drawn ... wires . When heated, steel is provided ... new properties. Painting steel helps it to resist ... corrosion. When a material is subjected ... a tensile load, it tends to extend. Adding certain properties ... steel or removing some ... it may be done by heating it.

hochschule hof
University of Applied Sciences

Look at Fig. 2

a) Write a description of the steel tensile test!

You may use the following expressions:

as the applied force increases - a rise in the extension - proportional to - return to its original shape - if the load is removed - up to point M - general extension continues until - phenomenon called 'waisting' (cross-sectional area becomes narrower) - notice that the load - elongation continues until - break at a load of x KN.

b) Write a similar description of the copper tensile test!

Figure 2