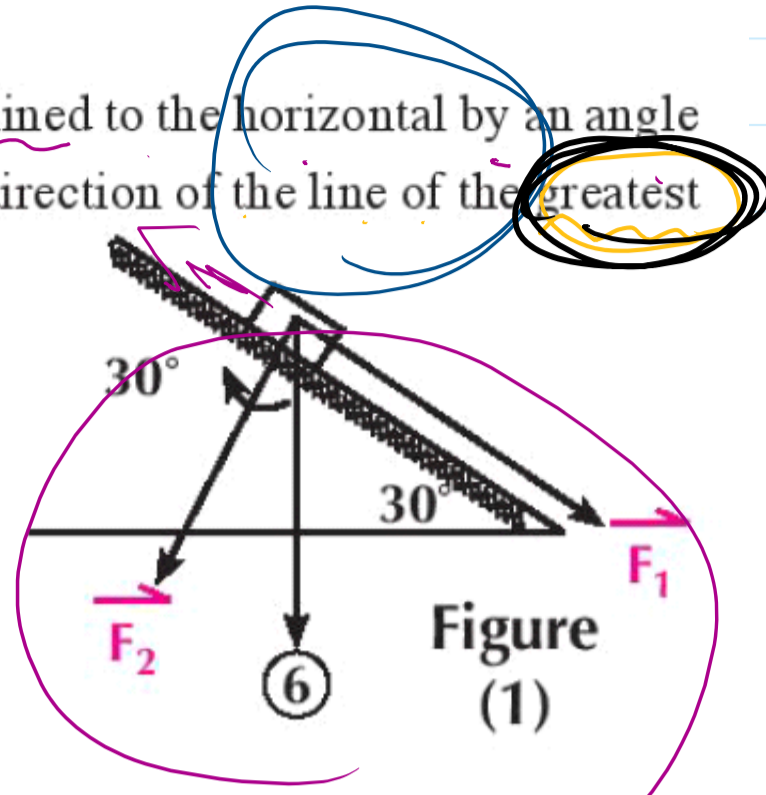
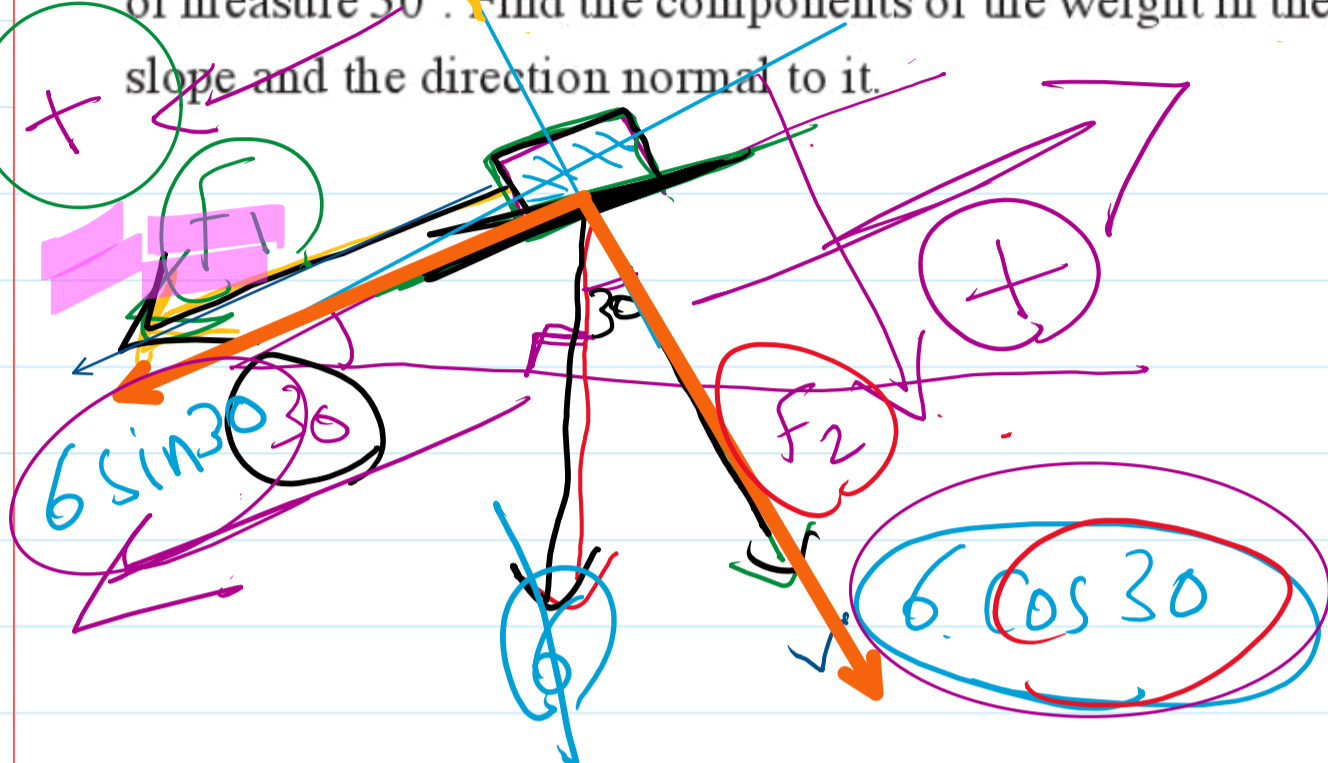


**Example**

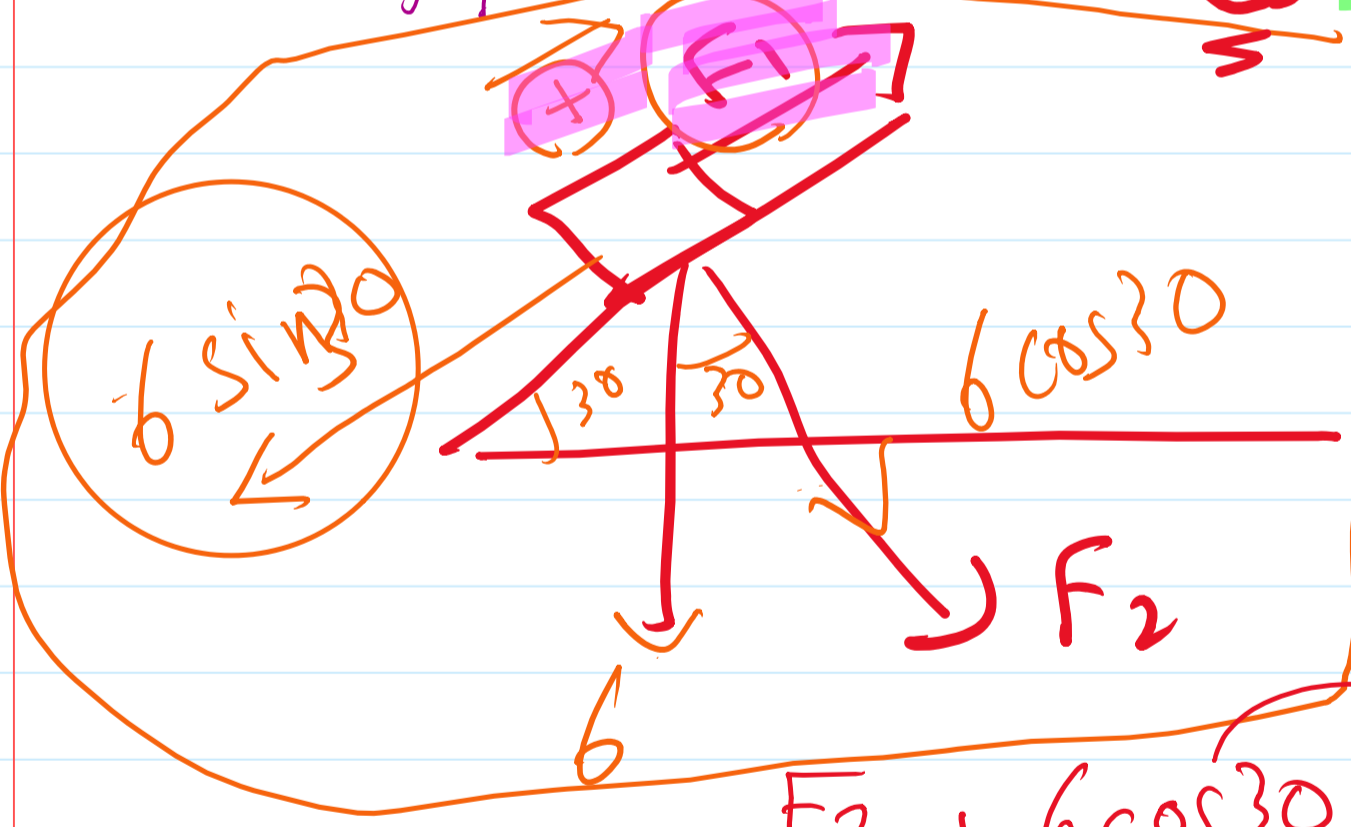
4 A body of weight 6 newton is placed on a smooth plane inclined to the horizontal by an angle of measure  $30^\circ$ . Find the components of the weight in the direction of the line of the greatest slope and the direction normal to it.



right = left

$$F_1 + 6 \sin 30 = 0$$

$$F_1 = -6 \sin 30 = -3 \text{ N}$$



$$F_1 = 6 \sin 30$$

$$F_1 = +3 \text{ N}$$

$$F_2 + 6 \cos 30 = 0$$

$$F_2 = -6 \cos 30$$

$$F_2 = -3\sqrt{3} \text{ N}$$

2

4 A rigid body, the magnitude of its weight is 36 newton is placed on a plane inclined to the horizontal at an angle of measure  $60^\circ$ . Find the two components of the weight in a direction parallel to the plane downwards and the direction normal to it.

~~$F_1 = 36 \sin 60 = 18\sqrt{3} \text{ N}$~~   
 ~~$F_2 = 36 \cos 60 = 18 \text{ N}$~~   
 $36 \sin 60$   
 $36 \cos 60$   
 $60$   
 $60$   
 $28\%$   $10$   
 $80\%$   
 $36 \text{ N}$   
 $F_1$   
 $F_2$

11 A rigid body of weight 42 newton is placed on a plane inclined to the horizontal with a angle of measure  $60^\circ$ . Find the two components of the weight of the body in the direction of the line of the greatest slope and the direction normal to it.

$42 \sin 60$   
 $42 \cos 60$   
 $60$   
 $60$   
 $F_1$   
 $F_2$   
 $42$