ERP-Planspiel, Short Exam

Henry Haustein, Dennis Rössel, Hannes Metzner, Felix Hauspurg

Question 1

(a) wrong, oat has to be at leat 30%, blueberry has to be at least 20%

(b) wrong, the sum of all ingredients is 0.55kg

(c) correct

(d) wrong, oat is missing, the raisins are not part of the recipe

Question 2

(a) After step 1: As we have already the missing 30,000 units of blueberry muesli in production, there is nothing else to do.

(b) After step 1: We need to produce 30,000 more units of original muesli.
After step 2: We have the ingredients for the muesli but we need 30,000 boxes and bags which we currently don't have in our inventory. We buy the 30,000 boxes and bags.
After step 3: After delivery we start the production.

Question 3

You should stick to your own conventions: In the American number system 30.000 units means 30 units....

	selling 30,000 units	invest 2M	reduce setup time	short on cash
(a) Credit rating	positive. If we have debt the debt is reduced and so our credit rating improves.	no influence, cash is reduced but Acc. receivables increase by same amount	no influence, cash is reduced but Acc. receivables increase by same amount	credit rating is getting worse because you need a loan
(b) weekly costs	no influence. Costs stay the same.	weekly costs increase as bigger machines need more employees	weekly costs increase as faster machines need more employees, use more energy, ...	increase because we have to pay interests
(c) cash account	positive, positive cash income	cash is reduced by 2M	cash is reduced by invested amount	is on 0 because we get a loan to get back to 0

(d) loan	positive, loan is reduced (if we are in debt)	if we have cash, then no influence, if not, then we need an additional loan	if we have cash, then no influence, if not, then we need an additional loan	increases, we need more loans

Question 4

(a) calculation below:

$$\text{Debt Loading} = (1,000,000 + 500,000) + (-12,000,000 - 150,000)$$
$$= -10,650,000 \Rightarrow BB \Rightarrow 7\%$$
$$\text{Company Value} = \frac{12 \cdot \frac{650,000-0}{3} + 0}{7\% + 7\%}$$
$$= 18,571,428.57$$

(b) calculation below, we pay the investment of 2M from cash:

$$\text{Debt Loading} = (800,000 + 240,000) + (-12,000,000 - 450,000)$$
$$= -11,410,000 \Rightarrow BB- \Rightarrow 7.25\%$$
$$\text{Company Value} = \frac{12 \cdot \frac{350,000-2,000,000}{1} + 2,000,000}{7\% + 7,25\%}$$
$$= -124,912,280.7$$

Question 5

(a) fixed costs change to 1.18 per unit, so 500g Nut Muesli will cost 2.08 and 1kg Original Muesli will cost 2.54

(b) fixed costs change to 2.06 per unit, so 500g Nut Muesli will cost 2.96 and 1kg Original Muesli will cost 3.42

(c) fixed costs change to 1.34 per unit, so 500g Nut Muesli will cost 2.24 and 1kg Original Muesli will cost 2.70