Name: Key Quiz 18

Consider the complete oxidation of glucose via glycolysis and the citric acid cycle.

1. How many total C-C and C-H bonds are present in one glucose? 12
2. How many redox steps? 12
3. How many NADH are produced? 10
4. Which enzymes catalyze reactions where NADH is produced? Dehydrogenases: glyceraldehyde-3-phosphate isocitrate malate pyruvate α-ketoglutarate
5. How many $FADH_2$ are produced? 2
6. Which enzymes catalyze reactions where $FADH_2$ is produced? succinate dehydrogenase
7. How many CO_2 are produced? 6
8. Which enzymes catalyze reactions where CO_2 is produced? Dehydrogenases: pyruvate isocitrate α-ketoglutarate
9. How many ATP equivalents has the cell overall gained or lose?

gained 4