important hints:

- Watch movie from 5:00 AM and answer question until 23:00.
- Solution movie and points provided at 8:00 the next morning.
- Answer weekend questions (Sat & Sun) until Monday evening 23:00.
- Answer exactly once. Answers cannot be changed.
- In case of questions, ask them via contact form on webpage before answering.
- Additional hints might be given in the „hint of the day“ (red bauble on webpage).
- Start with two jokers. Gain another joker by watching 10 solution movies. Jokers are played automatically in case of need.
- **Audience Joker:** See how the other participants voted and then decide. You can use this joker only once.
- **50:50-Joker:** Reduce the selection to only two options, one correct one and another one. You can use this joker only once.

Shopping list for PiA® – Physics in Advent 2021  

1.)
- 50 cent coin
- paper disc from a hole punch

2.)
- two cocktail tomatoes
- two water glasses
- sugar
- teaspoon

3.)
- bulbous wine glass or cognac glass
- wooden ball or pea

4.)
- 50 dominoes

5.)
- 1 spool of yarn (1-2.5 cm diameter, made of plastic).
- 1 sheet of paper
- 1 adhesive tape

6.)
- 2 teaspoons or 2 tablespoons

7.)
- a PET bottle

8.)
- a 4-mm reusable straw
- a 4-mm drill
- plasticine

9.)
- smartphone
- please install the "PhyPhox" app
- table top or tiled floor
- table tennis ball
- optional: Flummi, glass marble or other balls

10.)
- frosted glass created by roughening, e.g. found in a fridge
- clear, transparent adhesive strip

11.)
- water glass
- green (or blue, red) food colouring
- multivitamin tablet
- cooking oil
12.)
- 2 small glass bottles (max 1 cm opening, e.g. of food colouring).
- water
- washing-up liquid

13.)
- 1 full & 1 empty glass bottle of sparkling water. (classic, i.e. with a lot of carbonic acid)
- water glass
- metal spoon
- smartphone with "PhyPhox" app

14.)
- saucepan
- cooker for boiling
- water & salt

15.)
- hammer & nail
- metal lid of a peanut or tin can
- wash basin
- steady stream of water

16.)
- colour printer (b/w also works)
- 2 sheets of DIN A4 paper
- scissors
- adhesive for gluing the paper

17.)
- rice
- water, water glass
- cooking pot
- pot lid, preferably made of glass

18.)
- wooden yarn roll (diameter ~5cm), otherwise cardboard toilet roll & cardboard discs
- household rubber band
- match
- pen
- cocktail or shish kebab skewer
- adhesive tape, scissors
- sheet of paper

19.)
- 3 * 0.5 litre PET bottles
- 2 * reusable straws
- plasticine
- adhesive tape
- food colouring (optional)
- water
- scissors
- hand or cordless drill (optional)

20.)
- about 20 sheets of DIN-A4 paper
- adhesive tape, scissors
- several books with a total weight of 3 kg
- household scales

21.)
- drinking packet (tetrapack or stand-up pouch) with paper straw.
- 3 drinking glasses
- adhesive tape, scissors
- water
- 4 tablespoons of sugar
- tablespoon
- stopwatch or smartphone

22.)
- 2 * 1.5 l PET bottles
- 1m craft wire
- bottle (or other object) with 3cm * 3cm flat lid, e.g. milk bottle
- stones or books to stand the bottle on
- cubic ice cube

23.)
- several balloons
- 2 tablespoons of flour
- small funnel

24.)
- seven thin, long candles
- two household rubber bands
- water glass into which 7 candles just fit
- three individual candlesticks