Exercise in successive calculation

You've been given the task of creating a very basic fruit salad for a nice big picnic. You've never made one before at this scale and you're interested in working out how long it will take. You have at your disposal: oranges (16 pcs.), bananas (12 pcs.), pineapples (4 pcs.) and bunches of grapes (6 pcs.).

The bananas must be peeled and cut into 1cm slices. The oranges should be peeled, the white membranes removed and divided into boats, halved across (be careful not to cut yourself, so you need to spend time on first-aid). The grapes should be peeled off of bunches and each grape divided in half lengthwise. Top and bottom of the pineapples must be cut off and the rest cut into rings of 2cm thickness, after which the inner core and the outer hard shell is removed (watch out for the prickly spikes), and the rings should be cut into 8 pieces. Finally, all components of the fruit salad must be mixed together in a way so that it's going to look pretty.

Use the Successive Calculation Principle to estimate how many minutes each of the elements of the salad will take - and thus how long it will take you to make the whole fruit salad. First you estimate individually (10 minutes), and then you join the group and agree on the final estimates for each element and their uncertainties (15 minutes). If you find that the uncertainty in one or more of the elements is too large, break the item down in separate (sub)activities and estimate these in the same way in the group. Remember also to estimate possible general uncertainties (e.g: unripe / overripe fruit that cannot be used; dull blades, which must first be grinded; first aid in case of accidents).

Finally, you calculate the total estimate and the total uncertainty (standard deviation).

You can use the spreadsheet containing the Successive Calculation Formulas provided along with this exercise.

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