Following are examples of activities involve laboratory testing or calibration. Classify them as being PT or not PT according to the ISO 17043 definition (clause 3.7), the uses for PT listed in the Introduction, and the type of PT according to descriptions in Annex A.

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|  | **Activity** | **PT (Y/N)** | **Type of PT** |
| 1 | Identical samples of drinking water sent to 50 laboratories for determination of specific analytes, all with metrologically traceable assigned values; results are evaluated with limits set by regulatory body  |  |  |
| 2 | A Torque wrench is sent sequentially to 10 participants, with each participant sending the wrench to the next laboratory; returned to organizer after 10th participant. Results are evaluated with En scores and a reference value as assigned value |  |  |
| 3 | An assessor carries a sample of grain into a laboratory at the time of an assessment and requests that the laboratory determine ash, moisture, and protein. Performance will be evaluated immediately based on criteria the assessor also brought.  |  |  |
| 4 | Two laboratories send serum samples to each other every month for comparison with each other on a few analytes. Results are charted and examined over time, with laboratories examining any major differences. |  |  |
| 5 | A laboratory’s customer sends to the laboratory a sample that was produced by an accredited reference material producer, but repackaged in the customer’s bottle. The customer then compares the result with the value sent by the RM producer and published criteria for accuracy. |  |  |
| 6 | Identical samples of contaminated soil are sent to 35 laboratories for determination of specific analytes, and results are graded against a consensus mean, using criteria for error determined by a regulatory body. |  |  |
| 7 | Samples of water from a swimming beach are sent to 20 laboratories for determination of whether or not the sample contains faecal coliforms  |  |  |
| 8 | An electrical device is sent to 10 laboratories for determination of resistance at specific voltages. The artefact is returned to the organizer by each laboratory, prior to it being sent on to other participants.  |  |  |
| 9 | A medical organization reviews corrective actions by laboratories in response to unacceptable results in a PT scheme for Hematology analytes. The organization determines the adequacy of the actions to correct the problem. |  |  |
| 10 | An organization distributes 2 pieces of steel to 10 laboratories for determination of hardness and carbon content according to a defined protocol. Results from all laboratories are evaluated together for determination of the average carbon content and hardness of the sample.  |  |  |
| 11 | A laboratory purchases a sample of waste water from an accredited PT provider that was used previously for proficiency testing. The laboratory measures several analytes in the sample and returns the results to the provider for evaluation using the same criteria as used in the original PT.  |  |  |
| 12 | A PT provider sends two samples of slightly different concentration to participants in a food PT scheme. Results are evaluated separately and in combination, as an estimate of precision |  |  |
| 13 | A PT provider distributes a dataset that includes 5 pairs of data giving metrologically traceable levels of a measurand along with the instrument signal, and asks the participants to determine a calibration line, and then to use that line to give the result for an additional signal, also provided. |  |  |
| 14 | A professional society for medical laboratories asks laboratories to submit a sample of a stained slide for cervical cytology, from an actual patient case with a diagnosis of inflammation. The slide is evaluated for adequate staining and demonstration of the diagnosis, using standard criteria. |  |  |
| 15 | A municipal government laboratory instructs 5 sampling organizations to visit a construction site on a given day and draw samples to test for soil for specified measurands. Results are evaluated for consistency with the other organizations’ results. |  |  |
| 16  | An organization distributes 2 samples of pure DNA to 10 laboratories for determination of specific measurands according to a defined protocol. Results from all laboratories are evaluated together for determination of the average levels of the sample of the sample, but there is one laboratory that submitted results that are not consistent with the others; their results are not used in the determination of the average, and they are notified of this decision. |  |  |
| 17 | An organization of medical professionals distributes a set of data for an individual patient, including the patient history and a series of laboratory results. The participants are asked to submit the comments or diagnosis they would make based on those results, and their responses are evaluated relative to the expert judgment of the organization, based on established practice. |  |  |
| 18 | A national measurement institute sends a sample of plastic to other national measurement institutes and asks them to perform repeated measurements according to a specified design. Results are evaluated relative to the participants’ stated uncertainties for the relevant measurements, for consistency with the uncertainties and with other participants, and for consistency with the capabilities of the measurement procedure.  |  |  |
| 19 | An accrediting body schedules an assessment for an inspection body and requests that a PT provider send to that inspection body, a sample from a previous PT scheme for appropriate measurands. The results are evaluated against the same criteria used for the original PT scheme.  |  |  |
| 20 | A laboratory manager takes excess material from a PT sample that she has retained from a previous study (stability is known to be acceptable) and gives it to a laboratory technician that was recently hired. The technician’s results will be evaluated using the same criteria used for the PT scheme and, if acceptable, used as demonstration of the technician’s competence for that measurement procedure.  |  |  |