

**ANNEX A.1.**  
**CLASSIFICATION OF COMPUTER-BASED MATHEMATICS TASKS, BY WHETHER**  
**THEY REQUIRE THE USE OF COMPUTERS TO SOLVE PROBLEMS**

**Table A.1. PISA 2012 Main Survey computer-based mathematics item classification**

Unit Item Code	Unit Name	Item Format*	Content	Context	Process	Requires using computer tools?
CM002Q01	Cube building	CRA	Space and shape	Personal	Employ	Yes
CM002Q02	Cube building	CRA	Space and shape	Personal	Employ	Yes
CM004Q01T	Toast	CMC	Space and shape	Personal	Employ	No
CM004Q02T	Toast	CMC	Space and shape	Personal	Employ	No
CM004Q03	Toast	CRA	Space and shape	Personal	Formulate	No
CM005Q01	Fit the curve	CRA	Change and relationships	Scientific	Employ	No
CM005Q02	Fit the curve	SMC	Change and relationships	Scientific	Employ	Yes
CM005Q03	Fit the curve	SMC	Change and relationships	Scientific	Employ	Yes
CM005Q04	Fit the curve	CRA	Change and relationships	Scientific	Employ	Yes
CM006Q01	Buying online	CRA	Quantity	Personal	Employ	No
CM006Q02	Buying online	CRA	Quantity	Personal	Interpret	Yes
CM006Q03	Buying online	CRA	Quantity	Personal	Formulate	Yes
CM008Q01	Measure	CRA	Space and shape	Societal	Formulate	Yes
CM008Q02	Measure	CRA	Quantity	Societal	Formulate	No
CM011Q01T	Train or car	SRV	Change and relationships	Societal	Formulate	No
CM011Q02	Train or car	CRA	Change and relationships	Societal	Employ	No
CM011Q03	Train or car	CRA	Change and relationships	Societal	Employ	Yes
CM014Q01	Cotton	CRA	Uncertainty and data	Occupational	Employ	Yes
CM014Q02	Cotton	CRA	Uncertainty and data	Occupational	Employ	No
CM014Q03T	Cotton	SRV	Uncertainty and data	Occupational	Employ	No
CM015Q01	CD production	SMC	Quantity	Occupational	Employ	Yes
CM015Q02D	CD production	CRA	Change and relationships	Occupational	Formulate	Yes

Unit Item Code	Unit Name	Item Format*	Content	Context	Process	Requires using computer tools?
CM015Q03D	CD production	CRE	Change and relationships	Occupational	Interpret	Yes
CM016Q01	Shelving library books	CRA	Quantity	Occupational	Employ	No
CM020Q01	Star points	CRA	Space and shape	Scientific	Employ	No
CM020Q02	Star points	SMC	Space and shape	Scientific	Employ	No
CM020Q03	Star points	CRA	Space and shape	Scientific	Employ	No
CM020Q04	Star points	SMC	Space and shape	Scientific	Employ	No
CM025Q01	Common injuries	CRA	Uncertainty and data	Occupational	Formulate	Yes
CM025Q02T	Common injuries	SRV	Uncertainty and data	Occupational	Employ	No
CM028Q03	Shopping calculations	CRE	Quantity	Personal	Formulate	No
CM035Q01	GPS navigation	SMC	Space and shape	Personal	Interpret	No
CM035Q02	GPS navigation	SMC	Quantity	Personal	Interpret	No
CM035Q03	GPS navigation	SMC	Space and shape	Personal	Interpret	No
CM035Q04	GPS navigation	CRA	Quantity	Personal	Formulate	No
CM036Q01T	Cherry blossoms	CMC	Uncertainty and data	Societal	Interpret	Yes
CM036Q02	Cherry blossoms	CRA	Change and relationships	Societal	Employ	Yes
CM036Q03	Cherry blossoms	CRA	Change and relationships	Societal	Interpret	No
CM038Q03T	Body mass index	CMC	Uncertainty and data	Societal	Interpret	No
CM038Q05	Body mass index	CRE	Uncertainty and data	Societal	Interpret	No
CM038Q06	Body mass index	CRE	Uncertainty and data	Societal	Interpret	No

\*Legend: CMC: Complex multiple choice; CRA: Constructed response, auto-coded; CRE: Constructed response requiring expert coding; SMC: Simple multiple choice; SRV: Selected response variations.