

Exhibit D.1: Percentiles of Mathematics Achievement

Country	5 th Percentile	10 th Percentile	25 th Percentile	50 th Percentile	75 th Percentile	90 th Percentile	95 th Percentile
Albania	372 (9.5)	404 (8.0)	458 (5.7)	515 (5.8)	566 (5.3)	614 (7.4)	642 (8.8)
Armenia	388 (4.9)	418 (5.5)	468 (4.2)	519 (2.9)	560 (3.3)	596 (3.6)	618 (4.3)
Australia	366 (5.8)	403 (5.2)	465 (3.9)	530 (3.9)	588 (3.5)	638 (3.5)	668 (3.4)
Azerbaijan	334 (7.3)	368 (5.9)	433 (4.8)	502 (3.9)	560 (3.6)	606 (3.9)	632 (4.1)
Bahrain	298 (6.4)	332 (5.7)	393 (5.1)	464 (4.9)	530 (5.5)	588 (7.0)	622 (8.8)
Belgium (Flemish)	402 (5.1)	428 (4.2)	471 (3.6)	523 (2.7)	571 (2.6)	611 (2.6)	634 (2.6)
Belgium (French)	364 (4.6)	390 (4.2)	437 (3.3)	491 (3.6)	542 (2.6)	586 (2.1)	611 (3.7)
Bosnia & Herzegovina	319 (7.2)	347 (6.2)	397 (4.6)	451 (3.7)	498 (3.1)	541 (4.7)	565 (4.9)
Brazil	259 (3.8)	286 (3.7)	336 (3.1)	397 (3.5)	462 (4.7)	520 (6.2)	549 (8.2)
Bulgaria	365 (9.8)	406 (9.7)	473 (5.2)	539 (3.5)	595 (2.9)	638 (3.6)	664 (4.9)
Canada	368 (3.2)	399 (2.7)	450 (3.2)	505 (2.4)	559 (2.4)	605 (2.7)	633 (3.3)
Chile	307 (5.1)	338 (4.4)	388 (4.9)	445 (3.3)	500 (2.8)	546 (2.3)	574 (3.4)
Chinese Taipei	491 (3.5)	520 (3.2)	565 (2.0)	610 (2.1)	652 (1.8)	690 (2.7)	712 (3.2)
Cyprus	373 (5.6)	406 (4.7)	464 (3.1)	523 (2.3)	573 (2.4)	616 (2.5)	641 (3.8)
Czech Republic	403 (4.1)	433 (2.8)	482 (2.7)	534 (2.1)	581 (2.6)	622 (3.6)	646 (3.4)
Denmark	403 (4.1)	429 (4.2)	476 (2.8)	526 (2.6)	573 (2.2)	614 (3.2)	638 (3.2)
England	393 (5.9)	430 (4.5)	493 (4.1)	557 (3.4)	616 (2.4)	666 (4.9)	695 (5.1)
Finland	391 (6.5)	426 (4.3)	478 (3.5)	533 (3.0)	585 (3.2)	627 (3.1)	652 (3.8)
France	353 (5.1)	382 (3.4)	431 (4.3)	488 (3.6)	539 (3.4)	580 (3.5)	604 (4.3)
Georgia	358 (6.3)	391 (4.7)	446 (3.7)	502 (3.3)	553 (3.1)	596 (4.7)	621 (5.4)
Germany	393 (5.6)	424 (4.2)	475 (3.1)	527 (2.2)	576 (2.2)	619 (2.6)	643 (4.4)
Hong Kong SAR	440 (9.0)	482 (6.2)	547 (5.2)	602 (4.0)	651 (4.8)	693 (5.9)	718 (7.3)
Hungary	355 (11.9)	395 (8.2)	462 (5.9)	530 (3.9)	585 (2.8)	630 (3.2)	656 (4.2)
Iran, Islamic Rep. of	250 (7.4)	288 (7.0)	353 (5.9)	426 (4.5)	491 (4.2)	541 (4.0)	569 (4.0)
Ireland	401 (6.4)	435 (5.1)	495 (5.1)	554 (3.0)	604 (2.9)	643 (2.7)	667 (4.3)
Italy	375 (5.3)	406 (5.0)	461 (3.8)	517 (3.4)	570 (2.6)	613 (3.2)	638 (3.3)
Japan	472 (4.9)	499 (2.9)	545 (3.1)	593 (2.9)	639 (3.3)	680 (4.4)	704 (4.4)
Jordan	263 (7.7)	296 (6.0)	356 (6.0)	426 (5.9)	498 (7.1)	560 (10.1)	595 (10.2)
Kazakhstan	340 (6.8)	373 (5.4)	428 (3.7)	490 (3.4)	549 (4.4)	597 (4.1)	624 (6.2)
Korea, Rep. of	462 (7.0)	496 (4.9)	549 (3.3)	599 (2.5)	645 (2.9)	686 (3.5)	711 (4.2)
Kosovo	320 (6.7)	347 (5.1)	396 (3.7)	452 (3.4)	507 (3.7)	556 (4.0)	584 (4.1)
Kuwait	190 (8.8)	230 (6.4)	299 (5.8)	384 (4.7)	464 (4.9)	531 (6.5)	567 (7.2)
Latvia	400 (5.3)	430 (5.3)	483 (4.3)	537 (3.8)	590 (3.5)	632 (3.7)	655 (5.5)
Lithuania	426 (4.8)	460 (4.4)	512 (4.4)	566 (2.9)	614 (2.7)	655 (3.1)	679 (4.0)
Macao SAR	444 (3.8)	477 (2.7)	533 (1.6)	587 (1.3)	636 (1.8)	679 (1.9)	704 (3.5)
Montenegro	346 (4.7)	375 (3.9)	428 (2.9)	481 (2.7)	530 (2.4)	570 (2.6)	594 (3.4)
Morocco	230 (4.8)	262 (5.9)	322 (5.3)	390 (5.0)	463 (5.9)	527 (7.0)	566 (8.8)
Netherlands	426 (5.2)	452 (3.9)	494 (3.1)	540 (2.7)	583 (2.1)	618 (3.1)	638 (3.3)
New Zealand	338 (5.1)	371 (5.1)	427 (4.0)	492 (3.7)	555 (3.5)	607 (2.9)	635 (2.7)
North Macedonia	329 (6.9)	358 (5.6)	414 (4.6)	478 (4.3)	536 (3.3)	581 (3.8)	606 (5.4)
Norway (5)	404 (4.1)	434 (4.1)	481 (3.0)	534 (2.1)	582 (2.4)	623 (2.4)	646 (3.4)
Oman	267 (5.2)	298 (4.5)	350 (3.8)	418 (4.4)	489 (5.3)	552 (6.8)	590 (8.8)
Poland	411 (3.6)	445 (4.2)	498 (2.8)	551 (2.3)	598 (2.4)	640 (3.5)	662 (4.0)
Portugal	378 (4.3)	407 (5.5)	460 (4.1)	521 (3.1)	576 (2.5)	620 (2.7)	646 (4.6)
Qatar	303 (5.2)	336 (4.2)	395 (5.2)	466 (3.9)	533 (4.2)	590 (3.8)	620 (4.3)
Romania	389 (10.3)	423 (8.6)	487 (7.2)	550 (5.0)	601 (4.5)	645 (4.3)	672 (5.0)
Saudi Arabia	268 (5.8)	299 (6.1)	352 (4.0)	419 (5.6)	486 (5.0)	542 (5.2)	573 (4.8)
Serbia	382 (6.0)	414 (6.3)	471 (4.2)	529 (3.6)	578 (3.3)	619 (3.0)	645 (5.4)
Singapore	450 (7.4)	496 (5.9)	565 (5.0)	624 (3.3)	675 (3.2)	719 (2.8)	743 (4.2)
Slovak Republic	363 (8.6)	404 (8.2)	469 (4.4)	524 (3.2)	572 (3.1)	610 (3.1)	632 (3.9)
Slovenia	390 (3.4)	417 (3.2)	465 (2.3)	516 (2.6)	565 (2.4)	605 (2.5)	628 (3.8)
South Africa (5)	193 (4.8)	222 (3.9)	277 (3.7)	352 (4.2)	438 (4.5)	518 (7.3)	566 (9.0)
Spain	372 (4.9)	401 (4.0)	447 (3.1)	500 (2.4)	551 (2.0)	594 (2.3)	619 (3.4)
Sweden	399 (6.6)	430 (5.3)	480 (4.1)	533 (2.9)	583 (2.4)	625 (2.9)	650 (4.4)
Türkiye (5)	378 (6.8)	419 (6.1)	489 (6.1)	561 (4.4)	622 (3.8)	673 (4.9)	706 (6.7)
United Arab Emirates	314 (2.0)	350 (2.2)	423 (2.1)	506 (1.6)	576 (1.3)	630 (1.6)	662 (1.7)
United States	348 (4.4)	384 (4.6)	451 (4.0)	523 (3.6)	587 (3.3)	637 (3.5)	667 (4.4)
Uzbekistan	311 (5.8)	338 (4.3)	387 (3.8)	442 (3.5)	500 (4.2)	551 (4.6)	579 (4.7)
Benchmarking Participants							
Ontario, Canada	367 (5.3)	397 (5.3)	448 (4.4)	504 (3.9)	559 (4.3)	606 (4.0)	634 (5.9)
Quebec, Canada	390 (4.8)	418 (3.7)	465 (3.5)	517 (3.4)	566 (3.0)	608 (2.7)	632 (3.3)
Abu Dhabi, UAE	284 (3.0)	315 (3.1)	376 (3.0)	460 (2.8)	540 (2.3)	599 (2.8)	632 (2.7)
Dubai, UAE	390 (4.5)	434 (3.5)	502 (2.7)	565 (1.8)	618 (1.6)	666 (2.3)	695 (3.7)
Sharjah, UAE	336 (4.1)	374 (5.0)	441 (5.2)	511 (3.6)	572 (4.3)	622 (4.9)	652 (5.9)

Percentiles are defined in terms of percentages of students at or below a point on the scale.
 () Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.