

Exhibit 1.16: Average Achievement in Mathematics Content Domains by Gender

Country	Number (83 Items)		Measurement and Geometry (52 Items)		Data (36 Items)	
	Girls	Boys	Girls	Boys	Girls	Boys
Albania	493 (3.8)	497 (4.3)	492 (3.9)	499 (4.0)	494 (4.7) ▲	485 (4.4)
Armenia	520 (2.6)	516 (2.9)	489 (3.1)	491 (3.9)	450 (4.3)	444 (5.0)
Australia	501 (3.0)	511 (3.8) ▲	509 (3.2)	523 (3.9) ▲	531 (4.0)	537 (3.6)
Austria	539 (2.6)	544 (2.2)	534 (3.0)	549 (2.7) ▲	524 (4.2)	532 (2.7)
Azerbaijan	528 (3.2)	524 (3.0)	501 (4.0)	504 (3.4)	508 (3.5) ▲	500 (3.3)
Bahrain	482 (3.5)	475 (3.6)	473 (3.5)	475 (3.4)	487 (3.7)	479 (4.2)
† Belgium (Flemish)	520 (2.1)	533 (2.6) ▲	545 (2.5)	557 (2.7) ▲	523 (2.6)	530 (3.2)
Bosnia and Herzegovina	454 (2.7)	463 (2.6) ▲	452 (3.7)	464 (3.0) ▲	412 (4.0)	414 (4.5)
Bulgaria	520 (4.3)	523 (4.4)	518 (5.5)	525 (5.2)	491 (6.2)	488 (6.1)
^{1,2} Canada	495 (2.7)	515 (2.4) ▲	500 (2.7)	520 (2.1) ▲	514 (3.0)	531 (2.4) ▲
Chile	-	-	-	-	-	-
Chinese Taipei	597 (2.4)	602 (2.2)	606 (1.9)	609 (2.4)	588 (3.6)	592 (2.7)
Croatia	506 (2.5)	518 (2.5) ▲	514 (3.9)	522 (3.4)	491 (2.9)	497 (3.9)
Cyprus	528 (3.1)	549 (3.5) ▲	515 (3.3)	538 (4.2) ▲	518 (3.7)	529 (4.2) ▲
Czech Republic	531 (2.5)	540 (3.1) ▲	533 (3.5)	547 (3.9) ▲	512 (3.2)	524 (3.5) ▲
† Denmark	513 (2.4)	523 (2.8) ▲	533 (3.4)	540 (2.4) ▲	524 (3.2)	526 (3.4)
² England	556 (4.4)	562 (3.4)	540 (4.5)	550 (3.2) ▲	561 (4.2)	568 (3.5)
Finland	525 (2.9)	530 (2.8)	537 (3.4)	540 (3.3)	534 (3.6)	534 (3.1)
France	474 (3.6)	487 (3.7) ▲	490 (3.9)	505 (3.9) ▲	470 (4.1)	481 (3.7) ▲
¹ Georgia	498 (3.9)	504 (4.0)	466 (4.1)	473 (5.0)	439 (5.4)	449 (5.9)
Germany	512 (2.5)	523 (2.3) ▲	524 (3.2)	538 (2.8) ▲	511 (4.0)	518 (4.2)
† Hong Kong SAR	595 (4.5)	600 (3.8)	600 (3.6)	615 (3.7) ▲	607 (4.4)	607 (4.1)
Hungary	525 (3.0)	535 (3.1) ▲	510 (3.7)	528 (4.1) ▲	503 (4.0)	512 (4.2)
Iran, Islamic Rep. of	443 (6.6)	449 (5.8)	440 (6.0)	450 (5.3)	423 (6.0)	426 (5.4)
Ireland	551 (3.2)	558 (3.2)	538 (3.7)	543 (3.2)	540 (3.8)	545 (3.4)
Italy	515 (2.5)	529 (3.2) ▲	504 (3.5)	516 (3.7) ▲	490 (3.6)	507 (3.8) ▲
Japan	585 (2.2)	587 (2.2)	602 (3.4)	601 (2.6)	608 (2.5) ▲	603 (2.2)
² Kazakhstan	522 (2.9)	523 (2.8)	512 (3.2)	515 (2.9)	484 (3.6)	479 (3.2)
Korea, Rep. of	589 (2.6)	597 (3.1) ▲	605 (3.0)	610 (3.1)	605 (3.2)	600 (3.5)
² Kosovo	444 (3.1)	451 (3.5)	448 (3.7)	452 (3.7)	423 (4.3)	423 (5.1)
Kuwait	-	-	-	-	-	-
² Latvia	543 (2.9)	550 (3.2) ▲	545 (3.1)	550 (3.4)	542 (4.0)	542 (3.3)
² Lithuania	535 (3.1)	541 (3.6)	542 (3.5)	545 (3.7)	543 (3.9)	547 (4.7)
Malta	510 (2.7)	514 (2.0)	492 (2.4)	502 (2.8) ▲	506 (2.4)	517 (2.7) ▲
Montenegro	450 (2.9)	457 (2.4) ▲	460 (4.0)	459 (3.3)	442 (4.0)	436 (3.3)
Morocco	385 (4.9)	382 (4.5)	386 (5.7)	385 (4.8)	379 (5.8) ▲	369 (5.5)
≡ Netherlands	528 (2.8)	538 (2.8) ▲	530 (2.3)	544 (3.0) ▲	549 (4.0)	550 (3.9)
² New Zealand	476 (4.3)	481 (3.6)	476 (3.7)	486 (3.4) ▲	503 (4.8)	504 (3.8)
North Macedonia	472 (5.9)	473 (5.3)	476 (6.5)	474 (5.8)	465 (7.5)	464 (6.2)
† Northern Ireland	571 (3.6)	574 (3.8)	551 (3.8)	560 (3.7)	564 (3.1)	564 (4.0)
† Norway (5)	538 (2.6)	542 (2.8)	543 (3.3)	549 (3.6)	548 (3.9)	546 (4.1)
Oman	431 (4.0) ▲	416 (5.1)	433 (4.0) ▲	424 (5.1)	442 (4.3) ▲	423 (4.6)
^{2,ψ} Pakistan	358 (14.1)	346 (11.9)	296 (19.7)	278 (14.3)	303 (20.3) ▲	257 (12.5)
^{2,ψ} Philippines	324 (6.5) ▲	293 (6.0)	276 (7.7) ▲	243 (7.4)	315 (7.6) ▲	269 (7.8)
Poland	508 (3.3)	517 (3.1) ▲	524 (3.1)	535 (3.5) ▲	523 (3.7)	525 (3.2)
² Portugal	516 (3.3)	532 (3.2) ▲	512 (3.5)	528 (3.1) ▲	518 (2.9)	537 (3.3) ▲
Qatar	455 (5.1)	454 (3.2)	432 (5.5)	437 (2.9)	448 (5.7)	443 (3.7)
² Russian Federation	563 (3.6)	572 (3.6) ▲	566 (4.2)	576 (3.8) ▲	556 (4.2)	564 (4.3) ▲
² Saudi Arabia	-	-	-	-	-	-
² Serbia	519 (3.2)	516 (3.9)	496 (4.0)	502 (5.2)	493 (4.1)	486 (5.7)
³ Singapore	631 (4.3)	639 (4.3) ▲	615 (4.0)	625 (4.5) ▲	611 (4.1)	616 (4.3)
² Slovak Republic	507 (3.6)	518 (4.4) ▲	497 (4.1)	514 (4.4) ▲	501 (4.6)	510 (5.4)
South Africa (5)	381 (4.0) ▲	360 (3.8)	371 (4.3) ▲	354 (3.9)	403 (3.9) ▲	377 (4.4)
Spain	498 (2.7)	513 (2.4) ▲	484 (3.1)	502 (2.9) ▲	491 (3.0)	507 (3.2) ▲
Sweden	513 (3.2)	521 (3.4) ▲	515 (4.1)	528 (3.5) ▲	525 (4.4)	529 (3.8)
² Turkey (5)	524 (4.8)	527 (6.1)	524 (4.8)	531 (5.5)	510 (4.7)	511 (5.8)
United Arab Emirates	481 (2.5)	489 (2.2) ▲	467 (2.6)	476 (2.5) ▲	472 (2.6)	480 (2.4) ▲
^{2,†} United States	537 (2.9)	547 (3.1) ▲	513 (3.0)	526 (3.0) ▲	527 (3.2)	539 (3.8) ▲
International Average	506 (0.5)	510 (0.5) ▲	501 (0.6)	508 (0.6) ▲	499 (0.7)	500 (0.6)
Benchmarking Participants						
² Ontario, Canada	491 (5.2)	512 (3.8) ▲	506 (4.8)	526 (3.3) ▲	520 (5.2)	534 (4.0) ▲
Quebec, Canada	520 (2.9)	538 (2.6) ▲	523 (3.0)	540 (3.0) ▲	526 (3.7)	543 (3.2) ▲
Moscow City, Russian Fed.	586 (2.4)	595 (2.5) ▲	586 (2.8)	595 (2.8) ▲	598 (3.3)	608 (3.4) ▲
Madrid, Spain	516 (2.7)	533 (2.5) ▲	498 (3.9)	517 (3.3) ▲	505 (3.8)	521 (3.2) ▲
Abu Dhabi, UAE	441 (3.1)	445 (2.9)	427 (2.9)	432 (3.2)	434 (3.0)	436 (3.3)
² Dubai, UAE	544 (3.4)	552 (2.4)	531 (3.8)	540 (2.7)	541 (3.8)	551 (2.8)

▲ Average significantly higher than other gender

Numbers of items are based on the TIMSS 2019 fourth grade mathematics eAssessment items included in scaling.

ψ Reservations about reliability because the percentage of students with achievement too low for estimation exceeds 15% but does not exceed 25%.

See Appendix B.2 for population coverage notes 1, 2, and 3. See Appendix B.5 for sampling guidelines and sampling participation notes †, ‡, and =.

(.) Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

A dash (-) indicates comparable data not available because average achievement could not be accurately estimated.