

Exhibit M3.1: Achievement in Advanced Mathematics Content Domains

Country	Overall Advanced Mathematics Average Scale Score	Algebra (37 items)		Calculus (34 items)		Geometry (30 items)	
		Average Scale Score	Difference from Overall Advanced Mathematics Score	Average Scale Score	Difference from Overall Advanced Mathematics Score	Average Scale Score	Difference from Overall Advanced Mathematics Score
Russian Federation 6hr+	540 (7.8)	556 (9.0)	16 (3.9) ▲	513 (8.0)	-27 (2.3) ▼	560 (8.4)	20 (3.2) ▲
‡ Lebanon	532 (3.1)	525 (4.0)	-6 (3.6)	544 (3.9)	12 (2.8) ▲	526 (3.7)	-6 (2.3) ▼
‡ United States	485 (5.2)	478 (5.0)	-7 (1.7) ▼	504 (6.0)	19 (2.9) ▲	455 (5.7)	-30 (2.6) ▼
Russian Federation	485 (5.7)	495 (6.3)	10 (1.9) ▲	459 (5.9)	-26 (1.2) ▼	500 (5.8)	15 (1.0) ▲
† Portugal	482 (2.5)	495 (2.7)	12 (1.5) ▲	476 (2.6)	-6 (1.4) ▼	464 (3.2)	-18 (1.5) ▼
France	463 (3.1)	469 (2.9)	7 (1.8) ▲	466 (3.2)	3 (1.8)	441 (3.7)	-22 (1.3) ▼
Slovenia	460 (3.4)	474 (3.5)	14 (1.1) ▲	437 (4.4)	-23 (2.0) ▼	456 (4.0)	-4 (1.4) ▼
Norway	459 (4.6)	446 (4.1)	-13 (1.6) ▼	463 (5.3)	4 (1.5) ▲	473 (4.6)	14 (2.0) ▲
Sweden	431 (4.0)	422 (4.1)	-9 (1.2) ▼	438 (3.9)	7 (1.5) ▲	430 (3.7)	-1 (1.4)
Italy	422 (5.3)	414 (5.1)	-8 (2.2) ▼	433 (5.2)	11 (2.7) ▲	413 (5.7)	-9 (3.2) ▼

- ▲ Subscale score significantly higher than overall mathematics score
- ▼ Subscale score significantly lower than overall mathematics score

The Russian Federation 6hr+ results are for a subset of the Russian Federation students. This subset of students are in an Intensive stream that have at least 6 hours of mathematics lessons per week.

See Appendix MC.5 for sampling guidelines and sampling participation notes †, ‡, and £.

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

SOURCE: IEA's Trends in International Mathematics and Science Study – TIMSS Advanced 2015

