OSAS Mathematics Achievement Level Descriptors for Overall Performance

Achievement level descriptors provide high level statements about what students in a particular grade level who perform at each achievement level are able demonstrate about their learning. To use this table locate your student's grade level when tested and their overall achievement level or score range.

	Level 1	Level 2	Level 3	Level 4
Grade 3	Scores below 2381	Scores from 2381 to 2435	Scores from 2436 to 2500	Scores above 2500
	A student performing at Level 1 is able to: interpret and carry out mathematical procedures with minimal precision and fluency; make sense of and solve simple and familiar problems in pure and applied mathematics with a high degree of scaffolding; minimally explain and apply mathematical concepts; construct arguments using concrete referents such as objects, drawings, diagrams, and actions; identify familiar real-world scenarios, and use simple mathematical models and given tools to solve basic problems.	A student performing at Level 2 is able to: interpret and carry out mathematical procedures with partial precision and fluency; make sense of and solve familiar problems in pure and applied mathematics with a moderate degree of scaffolding; partially explain and apply mathematical concepts; find and identify the flaw in an argument; analyze familiar real-world scenarios, and use mathematical models and given tools to partially interpret and solve basic problems.	A student performing at Level 3 is able to: interpret and carry out mathematical procedures with adequate precision and fluency; make sense of and persevere in solving a range of unfamiliar problems in pure and applied mathematics with a limited degree of scaffolding; adequately explain and apply mathematical concepts; use stated assumptions, definitions and previous results to identify and repair a flawed argument; reason abstractly and quantitatively to analyze complex, real-world scenarios; construct and use mathematical models and appropriate tools to accurately solve problems.	A student performing at Level 4 is able to: interpret and carry out mathematical procedures with high precision and fluency; make sense of a range of complex and unfamiliar problems in pure and applied mathematics with no scaffolding; thoroughly apply mathematical concepts; analyze and interpret the context of an unfamiliar situation for problems of increasing complexity; construct chains of logic about abstract concepts autonomously.
Grade 4	Scores below 2411	Scores from 2411 to 2484	Scores from 2485 to 2548	Scores above 2548
	A student performing at Level 1 is able to: interpret and carry out mathematical procedures with minimal precision and fluency; make sense of and solve simple and familiar problems in pure and applied mathematics with a high degree of scaffolding; minimally explain and apply mathematical concepts; construct arguments using concrete referents such as objects, drawings, diagrams, and actions; identify familiar real-world scenarios, and use simple mathematical models and given tools to solve basic problems.	A student performing at Level 2 is able to: interpret and carry out mathematical procedures with partial precision and fluency; make sense of and solve familiar problems in pure and applied mathematics with a moderate degree of scaffolding; partially explain and apply mathematical concepts; find and identify the flaw in an argument; analyze familiar real-world scenarios, and use mathematical models and given tools to partially interpret and solve basic problems.	A student performing at Level 3 is able to: interpret and carry out mathematical procedures with adequate precision and fluency; make sense of and persevere in solving a range of unfamiliar problems in pure and applied mathematics with a limited degree of scaffolding; adequately explain and apply mathematical concepts; use stated assumptions, definitions and previous results to identify and repair a flawed argument; reason abstractly and quantitatively to analyze complex, real-world scenarios; construct and use mathematical models and appropriate tools to accurately solve problems.	A student performing at Level 4 is able to: interpret and carry out mathematical procedures with high precision and fluency; make sense of a range of complex and unfamiliar problems in pure and applied mathematics with no scaffolding; thoroughly apply mathematical concepts; analyze and interpret the context of an unfamiliar situation for problems of increasing complexity; construct chains of logic about abstract concepts autonomously.
Grade 5	Scores below 2455	Scores from 2455 to 2527	Scores from 2528 to 2578	Scores above 2578
	A student performing at Level 1 is able to: interpret and carry out mathematical procedures with minimal precision and fluency; make sense of and solve simple and familiar problems in pure and applied mathematics with a high degree of scaffolding; minimally explain and apply mathematical concepts; construct arguments using concrete referents such as objects, drawings, diagrams, and actions; identify familiar real-world scenarios, and use simple mathematical models and given tools to solve basic problems.	A student performing at Level 2 is able to: interpret and carry out mathematical procedures with partial precision and fluency; make sense of and solve familiar problems in pure and applied mathematics with a moderate degree of scaffolding; partially explain and apply mathematical concepts; find and identify the flaw in an argument; analyze familiar real-world scenarios, and use mathematical models and given tools to partially interpret and solve basic problems.	A student performing at Level 3 is able to: interpret and carry out mathematical procedures with adequate precision and fluency; make sense of and persevere in solving a range of unfamiliar problems in pure and applied mathematics with a limited degree of scaffolding; adequately explain and apply mathematical concepts; use stated assumptions, definitions and previous results to identify and repair a flawed argument; reason abstractly and quantitatively to analyze complex, real-world scenarios; construct and use mathematical models and appropriate tools to accurately solve problems.	A student performing at Level 4 is able to: interpret and carry out mathematical procedures with high precision and fluency; make sense of a range of complex and unfamiliar problems in pure and applied mathematics with no scaffolding; thoroughly apply mathematical concepts; analyze and interpret the context of an unfamiliar situation for problems of increasing complexity; construct chains of logic about abstract concepts autonomously.
Grade 6	Scores below 2473	Scores from2473 to 2551	Scores from 2552 to 2609	Scores above 2509
	A student performing at Level 1 is able to: interpret and carry out mathematical procedures with minimal precision and fluency; make sense of and solve simple and familiar problems in pure and applied mathematics with a high degree of scaffolding; minimally explain and apply mathematical concepts; construct arguments using concrete referents such as objects, drawings, diagrams, and actions; identify familiar real-world scenarios, and use simple mathematical models and given tools to solve basic problems.	A student performing at Level 2 is able to: interpret and carry out mathematical procedures with partial precision and fluency; make sense of and solve familiar problems in pure and applied mathematics with a moderate degree of scaffolding; partially explain and apply mathematical concepts; find and identify the flaw in an argument; analyze familiar real-world scenarios, and use mathematical models and given tools to partially interpret and solve basic problems.	A student performing at Level 3 is able to: interpret and carry out mathematical procedures with adequate precision and fluency; make sense of and persevere in solving a range of unfamiliar problems in pure and applied mathematics with a limited degree of scaffolding; adequately explain and apply mathematical concepts; use stated assumptions, definitions and previous results to identify and repair a flawed argument; reason abstractly and quantitatively to analyze complex, real-world scenarios; construct and use mathematical models and appropriate tools to accurately solve problems.	A student performing at Level 4 is able to: interpret and carry out mathematical procedures with high precision and fluency; make sense of a range of complex and unfamiliar problems in pure and applied mathematics with no scaffolding; thoroughly apply mathematical concepts; analyze and interpret the context of an unfamiliar situation for problems of increasing complexity; construct chains of logic about abstract concepts autonomously.

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	Level 1	Level 2	Level 3	Level 4
Grade 7	Scores below 2484	Scores from 2484 to 2566	Scores from 2567 to 2634	Scores above 2634
	A student performing at Level 1 is able to: interpret and carry out mathematical procedures with minimal precision and fluency; make sense of and solve simple and familiar problems in pure and applied mathematics with a high degree of scaffolding; minimally explain and apply mathematical concepts; construct arguments using concrete referents such as objects, drawings, diagrams, and actions; identify familiar real-world scenarios, and use simple mathematical models and given tools to solve basic problems.	A student performing at Level 2 is able to: interpret and carry out mathematical procedures with partial precision and fluency; make sense of and solve familiar problems in pure and applied mathematics with a moderate degree of scaffolding; partially explain and apply mathematical concepts; find and identify the flaw in an argument; analyze familiar real-world scenarios, and use mathematical models and given tools to partially interpret and solve basic problems.	A student performing at Level 3 is able to: interpret and carry out mathematical procedures with adequate precision and fluency; make sense of and persevere in solving a range of unfamiliar problems in pure and applied mathematics with a limited degree of scaffolding; adequately explain and apply mathematical concepts; use stated assumptions, definitions and previous results to identify and repair a flawed argument; reason abstractly and quantitatively to analyze complex, real-world scenarios; construct and use mathematical models and appropriate tools to accurately solve problems.	A student performing at Level 4 is able to: interpret and carry out mathematical procedures with high precision and fluency; make sense of a range of complex and unfamiliar problems in pure and applied mathematics with no scaffolding; thoroughly apply mathematical concepts; analyze and interpret the context of an unfamiliar situation for problems of increasing complexity; construct chains of logic about abstract concepts autonomously.
Grade 8	Scores below 2504	Scores from 2504 to 2585	Scores from 2586 to 2652	Scores above 2652
	A student performing at Level 1 is able to: interpret and carry out mathematical procedures with minimal precision and fluency; make sense of and solve simple and familiar problems in pure and applied mathematics with a high degree of scaffolding; minimally explain and apply mathematical concepts; construct arguments using concrete referents such as objects, drawings, diagrams, and actions; identify familiar real-world scenarios, and use simple mathematical models and given tools to solve basic problems.	A student performing at Level 2 is able to: interpret and carry out mathematical procedures with partial precision and fluency; make sense of and solve familiar problems in pure and applied mathematics with a moderate degree of scaffolding; partially explain and apply mathematical concepts; find and identify the flaw in an argument; analyze familiar real-world scenarios, and use mathematical models and given tools to partially interpret and solve basic problems.	A student performing at Level 3 is able to: interpret and carry out mathematical procedures with adequate precision and fluency; make sense of and persevere in solving a range of unfamiliar problems in pure and applied mathematics with a limited degree of scaffolding; adequately explain and apply mathematical concepts; use stated assumptions, definitions and previous results to identify and repair a flawed argument; reason abstractly and quantitatively to analyze complex, real-world scenarios; construct and use mathematical models and appropriate tools to accurately solve problems.	A student performing at Level 4 is able to: interpret and carry out mathematical procedures with high precision and fluency; make sense of a range of complex and unfamiliar problems in pure and applied mathematics with no scaffolding; thoroughly apply mathematical concepts; analyze and interpret the context of an unfamiliar situation for problems of increasing complexity; construct chains of logic about abstract concepts autonomously.
Grade 11	Scores below 2543	Scores from 2543 to 2627	Scores from 2628 to 2717	Scores above 2717
	A student performing at Level 1 is able to: interpret and carry out mathematical procedures with minimal precision and fluency; make sense of and solve simple and familiar problems in pure and applied mathematics with a high degree of scaffolding; minimally explain and apply mathematical concepts; construct arguments using concrete referents such as objects, drawings, diagrams, and actions; identify familiar real-world scenarios, and use simple mathematical models and given tools to solve basic problems.	A student performing at Level 2 is able to: interpret and carry out mathematical procedures with partial precision and fluency; make sense of and solve familiar problems in pure and applied mathematics with a moderate degree of scaffolding; partially explain and apply mathematical concepts; find and identify the flaw in an argument; analyze familiar real-world scenarios, and use mathematical models and given tools to partially interpret and solve basic problems.	A student performing at Level 3 is able to: interpret and carry out mathematical procedures with adequate precision and fluency; make sense of and persevere in solving a range of unfamiliar problems in pure and applied mathematics with a limited degree of scaffolding; adequately explain and apply mathematical concepts; use stated assumptions, definitions and previous results to identify and repair a flawed argument; reason abstractly and quantitatively to analyze complex, real-world scenarios; construct and use mathematical models and appropriate tools to accurately solve problems.	A student performing at Level 4 is able to: interpret and carry out mathematical procedures with high precision and fluency; make sense of a range of complex and unfamiliar problems in pure and applied mathematics with no scaffolding; thoroughly apply mathematical concepts; analyze and interpret the context of an unfamiliar situation for problems of increasing complexity; construct chains of logic about abstract concepts autonomously.