

Table 19: Comparison among Qwen3-1.7B / Qwen3-0.6B (Thinking) and other reasoning baselines. The highest and second-best scores are shown in bold and underlined, respectively.

		DeepSeek-R1 -Distill-Qwen-1.5B	DeepSeek-R1 -Distill-Llama-8B	Qwen3-0.6B	Qwen3-1.7B
	Architecture	Dense	Dense	Dense	Dense
	# Activated Params	1.5B	8B	0.6B	1.7B
	# Total Params	1.5B	8B	0.6B	1.7B
<i>General Tasks</i>	MMLU-Redux	45.4	<u>66.4</u>	55.6	73.9
	GPQA-Diamond	33.8	49.0	27.9	<u>40.1</u>
	C-Eval	27.1	<u>50.4</u>	<u>50.4</u>	68.1
	LiveBench 2024-11-25	24.9	<u>40.6</u>	30.3	51.1
<i>Alignment Tasks</i>	IFEval strict prompt	39.9	59.0	<u>59.2</u>	72.5
	Arena-Hard	4.5	<u>17.6</u>	8.5	43.1
	AlignBench v1.1	5.00	<u>6.24</u>	6.10	7.60
	Creative Writing v3	16.4	51.1	30.6	<u>48.0</u>
	WritingBench	4.03	5.42	<u>5.61</u>	7.02
<i>Math & Text Reasoning</i>	MATH-500	83.9	<u>89.1</u>	77.6	93.4
	AIME'24	28.9	50.4	10.7	<u>48.3</u>
	AIME'25	22.8	<u>27.8</u>	15.1	36.8
	ZebraLogic	4.9	<u>37.1</u>	30.3	63.2
	AutoLogi	19.1	<u>63.4</u>	61.6	83.2
<i>Agent & Coding</i>	BFCL v3	14.0	21.5	<u>46.4</u>	56.6
	LiveCodeBench v5	13.2	42.5	12.3	<u>33.2</u>
<i>Multilingual Tasks</i>	Multi-IF	13.3	27.0	<u>36.1</u>	51.2
	INCLUDE	21.9	34.5	<u>35.9</u>	51.8
	MMMLU 14 languages	27.3	40.1	<u>43.1</u>	59.1
	MT-AIME2024	12.4	<u>13.2</u>	7.8	36.1
	PolyMath	<u>14.5</u>	10.8	11.4	25.2
	MLogiQA	29.0	32.8	<u>40.9</u>	56.0

Table 20: Comparison among Qwen3-1.7B / Qwen3-0.6B (Non-thinking) and other non-reasoning baselines. The highest and second-best scores are shown in bold and underlined, respectively.

		Gemma-3 -1B-IT	Phi-4-mini	Qwen2.5-1.5B -Instruct	Qwen2.5-3B -Instruct	Qwen3-0.6B	Qwen3-1.7B
	Architecture	Dense	Dense	Dense	Dense	Dense	Dense
	# Activated Params	1.0B	3.8B	1.5B	3.1B	0.6B	1.7B
	# Total Params	1.0B	3.8B	1.5B	3.1B	0.6B	1.7B
<i>General Tasks</i>	MMLU-Redux	33.3	67.9	50.7	<u>64.4</u>	44.6	<u>64.4</u>
	GPQA-Diamond	19.2	25.2	29.8	30.3	22.9	28.6
	C-Eval	28.5	40.0	53.3	68.2	42.6	<u>61.0</u>
	LiveBench 2024-11-25	14.4	<u>25.3</u>	18.0	23.8	21.8	35.6
<i>Alignment Tasks</i>	IFEval strict prompt	54.5	68.6	42.5	58.2	54.5	<u>68.2</u>
	Arena-Hard	17.8	<u>32.8</u>	9.0	23.7	6.5	36.9
	AlignBench v1.1	5.3	6.00	5.60	<u>6.49</u>	5.60	7.20
	Creative Writing v3	52.8	10.3	31.5	42.8	28.4	<u>43.6</u>
	WritingBench	5.18	4.05	4.67	<u>5.55</u>	5.13	6.54
<i>Math & Text Reasoning</i>	MATH-500	46.4	<u>67.6</u>	55.0	67.2	55.2	73.0
	AIME'24	0.9	<u>8.1</u>	0.9	6.7	3.4	13.4
	AIME'25	0.8	<u>5.3</u>	0.4	4.2	2.6	9.8
	ZebraLogic	1.9	2.7	3.4	4.8	4.2	12.8
	AutoLogi	16.4	28.8	22.5	29.9	<u>37.4</u>	59.8
<i>Agent & Coding</i>	BFCL v3	16.3	31.3	47.8	<u>50.4</u>	44.1	52.2
	LiveCodeBench v5	1.8	<u>10.4</u>	5.3	<u>9.2</u>	3.6	11.6
<i>Multilingual Tasks</i>	Multi-IF	32.8	<u>40.5</u>	20.2	32.3	33.3	44.7
	INCLUDE	32.7	43.8	33.1	43.8	34.4	<u>42.6</u>
	MMMLU 14 languages	32.5	<u>51.4</u>	40.4	51.8	37.1	48.3
	MT-AIME2024	0.2	0.9	0.7	<u>1.6</u>	1.5	4.9
	PolyMath	3.5	6.7	5.0	<u>7.3</u>	4.6	10.3
	MLogiQA	31.8	39.5	<u>40.9</u>	39.5	37.3	41.1