Table 23 Checklist-Based Quality by Model, Sampling Strategy, and Task Category.

(Continued from Table 22)

Model	Sampling strategy	A	B	C	D	E	F	G	H
Llama-3.1-8B-Instruct	Temperature (t=0.0)	1.99 (0.09)	4.54 (0.20)	4.23 (0.27)	3.09 (0.18)	3.01 (0.13)	3.57 (0.26)	4.31 (0.13)	4.52 (0.07)
Llama-3.1-8B-Instruct	Temperature (t=0.5)	1.98 (0.09)	4.59 (0.15)	4.18 (0.25)	3.02 (0.17)	3.10 (0.13)	3.70 (0.24)	4.23 (0.13)	4.53 (0.06)
Llama-3.1-8B-Instruct	Temperature (t=1.0)	1.97 (0.08)	4.48 (0.18)	4.22 (0.23)	2.93 (0.18)	3.00 (0.12)	3.61 (0.24)	4.40 (0.09)	4.50 (0.06)
Llama-3.1-8B-Instruct	In-Context Regeneration (General)	2.21 (0.09)	4.68 (0.13)	4.12 (0.29)	3.04 (0.17)	2.85 (0.13)	3.44 (0.25)	4.37 (0.10)	4.28 (0.08)
Llama-3.1-8B-Instruct	In-Context Regeneration (Task-Anchored)	2.07 (0.09)	4.59 (0.18)	4.13 (0.23)	2.62 (0.16)	2.49 (0.10)	2.93 (0.22)	3.78 (0.14)	3.97 (0.08)
Llama-3.1-8B-Instruct	System Prompt (General)	2.22 (0.12)	4.19 (0.17)	4.05 (0.29)	2.79 (0.19)	2.38 (0.09)	2.98 (0.19)	3.95 (0.12)	3.74 (0.09)
Llama-3.1-8B-Instruct	System Prompt (Task-Anchored)	2.72 (0.15)	4.42 (0.13)	3.88 (0.27)	2.51 (0.17)	2.23 (0.08)	2.48 (0.18)	3.77 (0.15)	3.61 (0.10)
Mistral-7B-Instruct-v0.3	Temperature (t=0.0)	2.58 (0.13)	4.05 (0.25)	3.37 (0.23)	1.90 (0.15)	3.22 (0.13)	3.63 (0.24)	3.75 (0.15)	4.37 (0.07)
Mistral-7B-Instruct-v0.3	Temperature (t=0.5)	2.54 (0.12)	3.97 (0.24)	3.20 (0.27)	1.83 (0.13)	3.15 (0.13)	3.62 (0.23)	3.82 (0.14)	4.39 (0.07)
Mistral-7B-Instruct-v0.3	Temperature (t=1.0)	2.41 (0.11)	4.08 (0.21)	3.29 (0.25)	1.71 (0.13)	3.12 (0.13)	3.61 (0.22)	3.86 (0.14)	4.35 (0.07)
Mistral-7B-Instruct-v0.3	In-Context Regeneration (General)	2.64 (0.13)	4.15 (0.13)	3.44 (0.23)	1.89 (0.14)	2.95 (0.14)	3.36 (0.23)	3.75 (0.15)	4.17 (0.07)
Mistral-7B-Instruct-v0.3	In-Context Regeneration (Task-Anchored)	2.57 (0.14)	4.00 (0.25)	3.60 (0.32)	1.84 (0.15)	2.70 (0.13)	3.06 (0.22)	3.45 (0.16)	3.94 (0.08)
Mistral-7B-Instruct-v0.3	System Prompt (General)	2.48 (0.12)	3.99 (0.21)	3.07 (0.37)	1.50 (0.10)	2.24 (0.08)	2.54 (0.18)	3.45 (0.17)	3.59 (0.09)
Mistral-7B-Instruct-v0.3	System Prompt (Task-Anchored)	2.55 (0.12)	4.21 (0.17)	3.13 (0.34)	1.66 (0.13)	2.08 (0.08)	2.22 (0.17)	3.12 (0.16)	3.25 (0.11)

Table 24 Athene-RM-8B Reward by Model, Sampling Strategy, and Task Category.

Model	Sampling Strategy	A	B	C	D	E	F	G	H
gpt-4o	Temperature (t=0.0)	0.37 (0.09)	0.46 (0.13)	0.78 (0.14)	0.50 (0.12)	0.28 (0.06)	0.94 (0.21)	0.81 (0.09)	0.96 (0.08)
gpt-4o	Temperature (t=1.0)	0.35 (0.08)	0.43 (0.14)	0.78 (0.12)	0.47 (0.13)	0.49 (0.06)	0.97 (0.20)	0.81 (0.10)	0.98 (0.07)
gpt-4o	Temperature (t=2.0)	0.34 (0.08)	0.41 (0.12)	0.80 (0.12)	0.45 (0.14)	0.56 (0.08)	1.04 (0.21)	0.85 (0.10)	1.07 (0.07)
gpt-4o	In-Context Regeneration (General)	-0.38 (0.08)	-0.36 (0.11)	0.04 (0.21)	0.45 (0.11)	-0.40 (0.07)	0.30 (0.19)	0.65 (0.15)	-0.38 (0.10)
gpt-4o	In-Context Regeneration (Task-Anchored)	-0.08 (0.08)	-0.36 (0.10)	0.05 (0.21)	0.54 (0.12)	-0.24 (0.08)	0.29 (0.24)	0.61 (0.16)	-0.24 (0.10)
gpt-4o	System Prompt (General)	-0.05 (0.08)	-0.05 (0.16)	0.15 (0.22)	0.39 (0.13)	-1.12 (0.08)	-0.64 (0.18)	0.22 (0.13)	-0.70 (0.10)
gpt-4o	System Prompt (Task-Anchored)	-0.19 (0.09)	-0.25 (0.19)	-0.13 (0.24)	-0.02 (0.12)	-1.18 (0.07)	-1.25 (0.20)	0.16 (0.15)	-0.91 (0.11)
claude-4-sonnet	Temperature (t=0.0)	0.42 (0.08)	0.12 (0.20)	0.69 (0.20)	0.08 (0.15)	1.10 (0.07)	1.07 (0.16)	0.96 (0.12)	1.13 (0.07)
claude-4-sonnet	Temperature (t=0.5)	0.43 (0.08)	0.11 (0.21)	0.68 (0.20)	0.03 (0.15)	1.08 (0.07)	1.07 (0.17)	0.97 (0.12)	1.17 (0.07)
claude-4-sonnet	Temperature (t=1.0)	0.41 (0.08)	0.11 (0.21)	0.67 (0.20)	0.14 (0.14)	1.09 (0.07)	1.13 (0.15)	0.96 (0.11)	1.16 (0.07)
claude-4-sonnet	In-Context Regeneration (General)	0.33 (0.08)	-0.06 (0.16)	0.46 (0.16)	0.25 (0.13)	0.88 (0.07)	0.89 (0.15)	0.70 (0.11)	0.78 (0.07)
claude-4-sonnet	In-Context Regeneration (Task-Anchored)	0.26 (0.08)	-0.25 (0.19)	0.42 (0.16)	-0.15 (0.11)	0.76 (0.06)	0.74 (0.15)	0.48 (0.12)	0.71 (0.07)
claude-4-sonnet	System Prompt (General)	0.29 (0.08)	0.20 (0.12)	0.26 (0.21)	0.39 (0.11)	-0.25 (0.08)	0.28 (0.18)	0.53 (0.12)	0.29 (0.08)
claude-4-sonnet	System Prompt (Task-Anchored)	0.28 (0.08)	0.12 (0.15)	0.29 (0.19)	0.18 (0.11)	-0.35 (0.08)	-0.16 (0.16)	0.50 (0.13)	-0.02 (0.10)
gemini-2.5-flash	Temperature (t=0.0)	0.05 (0.10)	-0.30 (0.09)	0.22 (0.17)	-0.20 (0.14)	1.25 (0.15)	0.65 (0.23)	0.64 (0.14)	0.56 (0.14)
gemini-2.5-flash	Temperature (t=1.0)	0.12 (0.09)	-0.21 (0.10)	0.37 (0.15)	-0.24 (0.15)	1.27 (0.12)	0.70 (0.26)	0.67 (0.13)	0.55 (0.13)
gemini-2.5-flash	Temperature (t=2.0)	0.13 (0.09)	-0.31 (0.10)	0.35 (0.15)	-0.26 (0.15)	1.05 (0.13)	0.69 (0.22)	0.59 (0.12)	0.54 (0.13)
gemini-2.5-flash	In-Context Regeneration (General)	-0.51 (0.09)	-0.64 (0.11)	0.27 (0.14)	0.04 (0.13)	1.27 (0.09)	0.71 (0.22)	0.62 (0.14)	0.45 (0.15)
gemini-2.5-flash	In-Context Regeneration (Task-Anchored)	-0.16 (0.09)	-0.62 (0.11)	0.15 (0.15)	-0.28 (0.13)	1.27 (0.09)	0.56 (0.24)	0.46 (0.15)	0.44 (0.13)
gemini-2.5-flash	System Prompt (General)	0.10 (0.08)	-0.28 (0.12)	-0.04 (0.23)	0.24 (0.11)	-0.23 (0.07)	0.16 (0.19)	0.69 (0.11)	0.26 (0.09)
gemini-2.5-flash	System Prompt (Task-Anchored)	-0.22 (0.08)	-0.56 (0.09)	0.08 (0.20)	0.12 (0.12)	0.37 (0.09)	-0.62 (0.18)	0.32 (0.16)	0.02 (0.11)

Table 25 Athene-RM-8B Reward by Model, Sampling Strategy, and Task Category.

(Continued from Table 24)

Model	Sampling Strategy	A	B	C	D	E	F	G	H
Llama-3.1-8B-Instruct	Temperature (t=0.0)	-0.84 (0.07)	0.02 (0.10)	0.03 (0.20)	-0.87 (0.18)	-0.91 (0.07)	-0.49 (0.27)	-0.22 (0.15)	0.04 (0.08)
Llama-3.1-8B-Instruct	Temperature (t=0.5)	-0.81 (0.07)	0.02 (0.12)	0.03 (0.14)	-0.94 (0.17)	-0.90 (0.07)	-0.30 (0.18)	-0.16 (0.14)	0.04 (0.07)
Llama-3.1-8B-Instruct	Temperature (t=1.0)	-0.95 (0.06)	-0.17 (0.16)	0.14 (0.13)	-0.86 (0.15)	-0.76 (0.07)	-0.29 (0.17)	-0.06 (0.12)	0.06 (0.07)
Llama-3.1-8B-Instruct	In-Context Regeneration (General)	-0.62 (0.06)	-0.34 (0.15)	-0.21 (0.23)	-0.92 (0.17)	-1.34 (0.08)	-0.87 (0.14)	-0.29 (0.14)	-0.51 (0.08)
Llama-3.1-8B-Instruct	In-Context Regeneration (Task-Anchored)	-0.74 (0.06)	-0.57 (0.12)	-0.09 (0.16)	-1.47 (0.16)	-1.59 (0.08)	-1.24 (0.13)	-0.75 (0.15)	-0.92 (0.09)
Llama-3.1-8B-Instruct	System Prompt (General)	-0.24 (0.08)	-0.36 (0.22)	-0.02 (0.19)	-0.83 (0.16)	-2.08 (0.09)	-1.53 (0.17)	-0.80 (0.17)	-1.35 (0.11)
Llama-3.1-8B-Instruct	System Prompt (Task-Anchored)	-0.14 (0.09)	-0.19 (0.19)	0.00 (0.22)	-1.05 (0.15)	-2.24 (0.09)	-2.04 (0.19)	-0.86 (0.18)	-1.48 (0.12)
Mistral-7B-Instruct-v0.3	Temperature (t=0.0)	-0.08 (0.07)	-0.08 (0.20)	-0.78 (0.15)	-1.30 (0.15)	-1.12 (0.08)	-0.45 (0.13)	-0.35 (0.13)	-0.39 (0.07)
Mistral-7B-Instruct-v0.3	Temperature (t=0.5)	-0.06 (0.06)	-0.07 (0.16)	-0.84 (0.15)	-1.37 (0.13)	-1.06 (0.08)	-0.39 (0.11)	-0.29 (0.11)	-0.32 (0.06)
Mistral-7B-Instruct-v0.3	Temperature (t=1.0)	-0.09 (0.06)	-0.17 (0.16)	-0.74 (0.14)	-1.40 (0.12)	-0.98 (0.07)	-0.36 (0.12)	-0.18 (0.10)	-0.28 (0.06)
Mistral-7B-Instruct-v0.3	In-Context Regeneration (General)	-0.18 (0.07)	-0.33 (0.13)	-0.74 (0.20)	-1.32 (0.13)	-1.22 (0.09)	-0.76 (0.13)	-0.46 (0.12)	-0.73 (0.08)
Mistral-7B-Instruct-v0.3	In-Context Regeneration (Task-Anchored)	-0.10 (0.07)	-0.48 (0.15)	-0.59 (0.21)	-1.38 (0.13)	-1.54 (0.11)	-1.01 (0.17)	-1.00 (0.12)	-1.07 (0.09)
Mistral-7B-Instruct-v0.3	System Prompt (General)	-0.41 (0.08)	-0.49 (0.25)	-1.17 (0.22)	-1.81 (0.13)	-2.19 (0.08)	-2.06 (0.21)	-1.04 (0.17)	-1.81 (0.13)
Mistral-7B-Instruct-v0.3	System Prompt (Task-Anchored)	-0.41 (0.08)	-0.33 (0.18)	-1.20 (0.25)	-1.86 (0.15)	-2.30 (0.09)	-2.46 (0.19)	-1.29 (0.16)	-2.15 (0.15)