Top row (HumanEval Pass@1 vs Accuracy):

- **Data Dependency:** $y = 0.25x + 41.21$, $\rho = 0.31$ (p-value=0.355)
- **Dead Code:** $y = 0.47x + 31.23$, $\rho = 0.61$ (p-value=0.047*)
- **Dominators:** $y = 1.14x - 24.27$, $\rho = 0.79$ (p-value=0.004**)
- **Function Reachability:** $y = 0.39x + 29.16$, $\rho = 0.65$ (p-value=0.029*)
- **Liveness:** $y = -0.23x + 54.17$, $\rho = -0.63$ (p-value=0.039*)
- **Loop Reachability:** $y = 0.39x + 25.83$, $\rho = 0.42$ (p-value=0.201)

Bottom row (MBPP Pass@1 vs Accuracy):

- **Data Dependency:** $y = 0.24x + 33.08$, $\rho = 0.28$ (p-value=0.425)
- **Dead Code:** $y = 0.48x + 26.58$, $\rho = 0.52$ (p-value=0.128)
- **Dominators:** $y = 0.85x - 12.60$, $\rho = 0.98$ (p-value=0.000***)
- **Function Reachability:** $y = 0.58x + 14.67$, $\rho = 0.73$ (p-value=0.016*)
- **Liveness:** $y = 0.12x + 27.68$, $\rho = 0.04$ (p-value=0.907)
- **Loop Reachability:** $y = 0.39x + 17.23$, $\rho = 0.47$ (p-value=0.174)

Legend:

- GPT-5-Codex
- GPT-5
- GPT-4o Mini
- GPT-3.5 Turbo
- DeepSeek-Coder V2-Lite-Instr
- DeepSeek-Coder 7B-Instr v1.5
- DeepSeek-R1-Distill-Qwen-7B
- CodeLlama-13B-Instr
- CodeLlama-7B-Instr
- Llama-3 8B-Instr
- Mistral 7B-Instr (v0.3)
- Mamba Codestral 7B (v0.1)
- Qwen2.5-Coder 14B-Instr
- Qwen3 14B
- StarCoder 2 7B
- Phi-4 Reasoning (14B)