

operator	target	ingredient	number of iterations	parse error	success	better fitness	worse fitness	same fitness	same output	better and same
StmtInsertion	expr_stmt	for	2535	77.51%	22.49%	0.36%	2.01%	20.12%	9.86%	20.48%
StmtInsertion	expr_stmt	expr_stmt	7298	29.01%	70.99%	2.00%	19.03%	49.96%	19.36%	51.96%
StmtInsertion	expr_stmt	decl_stmt	5616	81.32%	18.68%	0.00%	0.46%	18.22%	8.80%	18.22%
StmtInsertion	expr_stmt	return	2915	91.66%	8.34%	0.00%	0.00%	8.34%	7.00%	8.34%
StmtInsertion	expr_stmt	if	2867	45.03%	54.97%	0.21%	4.95%	49.81%	22.92%	50.02%
StmtInsertion	expr_stmt	while	530	49.25%	50.75%	0.38%	10.94%	39.43%	12.26%	39.81%
StmtInsertion	expr_stmt	continue	48	97.92%	2.08%	0.00%	0.00%	2.08%	0.00%	2.08%
StmtInsertion	decl_stmt	decl_stmt	5108	89.70%	10.30%	0.00%	0.49%	9.81%	4.84%	9.81%
StmtInsertion	decl_stmt	expr_stmt	5558	83.75%	16.25%	0.11%	5.78%	10.36%	4.17%	10.47%
StmtInsertion	decl_stmt	for	2208	88.59%	11.41%	0.05%	2.13%	9.24%	4.85%	9.29%
StmtInsertion	decl_stmt	if	2881	75.43%	24.57%	0.00%	0.07%	24.51%	11.56%	24.51%
StmtInsertion	decl_stmt	return	3224	97.46%	2.54%	0.00%	0.00%	2.54%	2.23%	2.54%
StmtInsertion	decl_stmt	while	383	85.38%	14.62%	0.00%	8.36%	6.27%	2.61%	6.27%
StmtInsertion	decl_stmt	continue	51	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
StmtInsertion	if	decl_stmt	2728	87.87%	12.13%	0.00%	0.00%	12.13%	6.12%	12.13%
StmtInsertion	if	return	3540	97.18%	2.82%	0.00%	0.00%	2.82%	2.54%	2.82%
StmtInsertion	if	if	2845	29.38%	70.62%	0.88%	4.89%	64.85%	28.15%	65.73%
StmtInsertion	if	expr_stmt	2833	54.15%	45.85%	3.99%	20.19%	21.67%	10.02%	25.66%
StmtInsertion	if	for	1116	86.38%	13.62%	0.18%	0.90%	12.54%	7.26%	12.72%
StmtInsertion	if	while	239	81.17%	18.83%	0.00%	8.79%	10.04%	4.60%	10.04%
StmtInsertion	if	continue	24	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
StmtInsertion	for	expr_stmt	2506	74.86%	25.14%	1.12%	7.06%	16.96%	8.46%	18.08%
StmtInsertion	for	for	1498	40.32%	59.68%	0.47%	16.15%	43.06%	18.29%	43.53%
StmtInsertion	for	return	1285	94.40%	5.60%	0.00%	0.00%	5.60%	4.90%	5.60%
StmtInsertion	for	if	1140	76.05%	23.95%	0.00%	1.14%	22.81%	12.02%	22.81%
StmtInsertion	for	decl_stmt	2169	88.84%	11.16%	0.00%	0.00%	11.16%	6.64%	11.16%
StmtInsertion	for	while	84	67.86%	32.14%	0.00%	0.00%	32.14%	4.76%	32.14%
StmtInsertion	for	continue	13	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
StmtInsertion	return	for	1283	46.38%	53.62%	1.09%	12.94%	39.59%	15.59%	40.68%
StmtInsertion	return	decl_stmt	3250	62.22%	37.78%	4.52%	1.02%	32.25%	13.38%	36.77%
StmtInsertion	return	return	4906	94.66%	5.34%	0.00%	0.02%	5.32%	4.32%	5.32%
StmtInsertion	return	expr_stmt	2870	58.64%	41.36%	0.77%	8.26%	32.33%	12.86%	33.10%
StmtInsertion	return	if	3530	52.72%	47.28%	0.03%	1.84%	45.41%	21.22%	45.44%
StmtInsertion	return	while	210	63.33%	36.67%	0.00%	4.76%	31.90%	20.48%	31.90%
StmtInsertion	return	continue	23	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
StmtInsertion	while	decl_stmt	402	85.57%	14.43%	0.00%	0.00%	14.43%	4.23%	14.43%
StmtInsertion	while	return	227	94.27%	5.73%	0.00%	0.00%	5.73%	4.85%	5.73%
StmtInsertion	while	expr_stmt	545	48.62%	51.38%	0.73%	37.61%	13.03%	7.89%	13.76%
StmtInsertion	while	if	205	42.93%	57.07%	0.00%	31.22%	25.85%	16.10%	31.22%
StmtInsertion	while	while	140	50.71%	49.29%	0.00%	0.00%	49.29%	17.14%	49.29%
StmtInsertion	while	for	105	38.10%	61.90%	0.00%	32.38%	29.52%	1.90%	29.52%
StmtInsertion	while	continue	9	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
StmtInsertion	continue	expr_stmt	54	31.48%	68.52%	0.00%	0.00%	68.52%	31.48%	68.52%
StmtInsertion	continue	return	22	86.36%	13.64%	0.00%	0.00%	13.64%	9.09%	13.64%
StmtInsertion	continue	for	13	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
StmtInsertion	continue	if	14	7.14%	92.86%	0.00%	0.00%	92.86%	50.00%	92.86%
StmtInsertion	continue	decl_stmt	48	64.58%	35.42%	0.00%	0.00%	35.42%	16.67%	35.42%
StmtInsertion	continue	while	7	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
StmtInsertion	continue	continue	5	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
StmtReplacement	decl_stmt	decl_stmt	3588	95.96%	4.04%	0.00%	0.00%	4.04%	2.79%	4.04%
StmtReplacement	decl_stmt	if	2831	97.28%	2.72%	0.00%	0.00%	2.72%	2.23%	2.72%
StmtReplacement	decl_stmt	expr_stmt	5565	97.27%	2.73%	0.00%	0.02%	2.71%	2.43%	2.71%
StmtReplacement	decl_stmt	return	3187	97.18%	2.82%	0.00%	0.00%	2.82%	2.20%	2.82%
StmtReplacement	decl_stmt	for	2198	95.63%	4.37%	0.00%	0.00%	4.37%	4.00%	4.37%
StmtReplacement	decl_stmt	while	422	99.76%	0.24%	0.00%	0.00%	0.24%	0.24%	0.24%
StmtReplacement	decl_stmt	continue	50	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
StmtReplacement	for	expr_stmt	2450	75.02%	24.98%	1.67%	12.29%	11.02%	5.47%	12.69%
StmtReplacement	for	if	1098	75.50%	24.50%	2.91%	7.63%	13.75%	8.56%	16.66%
StmtReplacement	for	decl_stmt	2201	78.96%	21.04%	1.32%	7.22%	12.49%	6.22%	13.81%
StmtReplacement	for	for	838	77.45%	22.55%	0.36%	8.47%	13.72%	6.80%	14.08%
StmtReplacement	for	return	1333	86.80%	13.20%	1.05%	1.73%	10.43%	5.70%	11.48%
StmtReplacement	for	while	114	62.28%	37.72%	0.00%	35.96%	1.75%	0.88%	1.75%
StmtReplacement	for	continue	10	60.00%	40.00%	0.00%	0.00%	40.00%	0.00%	40.00%
StmtReplacement	expr_stmt	decl_stmt	5539	82.02%	17.98%	0.32%	4.03%	13.63%	6.82%	13.95%
StmtReplacement	expr_stmt	if	2853	53.31%	46.69%	1.96%	14.90%	29.83%	13.49%	31.79%
StmtReplacement	expr_stmt	expr_stmt	5607	42.68%	57.32%	4.28%	26.22%	26.82%	9.58%	31.10%
StmtReplacement	expr_stmt	return	2934	57.91%	42.09%	2.32%	13.80%	25.97%	11.08%	28.29%
StmtReplacement	expr_stmt	for	2499	78.59%	21.41%	1.60%	6.60%	13.21%	8.44%	14.81%
StmtReplacement	expr_stmt	while	546	53.85%	46.15%	0.18%	21.25%	24.73%	5.31%	24.91%
StmtReplacement	expr_stmt	continue	42	42.86%	57.14%	0.00%	19.05%	38.10%	4.76%	38.10%
StmtReplacement	if	return	3540	84.49%	15.51%	1.67%	7.09%	6.75%	4.01%	8.76%
StmtReplacement	if	decl_stmt	2884	85.16%	14.84%	1.39%	4.44%	9.02%	4.47%	10.41%
StmtReplacement	if	for	1165	91.93%	8.07%	1.55%	0.86%	5.67%	4.55%	7.22%
StmtReplacement	if	expr_stmt	2890	76.89%	23.11%	0.93%	13.25%	8.93%	4.98%	9.86%
StmtReplacement	if	if	1604	58.54%	41.46%	7.67%	14.59%	19.20%	7.61%	26.87%
StmtReplacement	if	while	189	72.49%	27.51%	0.00%	4.23%	23.28%	11.64%	23.28%
StmtReplacement	if	continue	21	76.19%	23.81%	0.00%	19.05%	4.76%	4.76%	4.76%
StmtReplacement	return	decl_stmt	3329	86.45%	13.55%	0.00%	3.94%	9.61%	5.26%	9.61%
StmtReplacement	return	expr_stmt	2962	85.04%	14.96%	0.68%	7.66%	6.62%	4.25%	7.30%
StmtReplacement	return	for	1308	88.91%	11.09%	0.15%	3.59%	7.34%	5.28%	7.49%
StmtReplacement	return	if	3475	82.56%	17.44%	0.12%	3.05%	14.27%	7.83%	14.39%
StmtReplacement	return	return	3211	27.56%	72.44%	8.38%	28.62%	35.44%	15.42%	43.82%
StmtReplacement	return	while	222	45.50%	54.50%	0.00%	6.31%	48.20%	25.23%	48.20%
StmtReplacement	return	continue	19	63.16%	36.84%	0.00%	36.84%	0.00%	0.00%	0.00%
StmtReplacement	while	if	197	80.20%	19.80%	0.00%	16.75%	3.05%	3.05%	3.05%
StmtReplacement	while	decl_stmt	378	83.60%	16.40%	0.00%	4.50%	11.90%	2.65%	11.90%
StmtReplacement	while	expr_stmt	563	68.74%	31.26%	0.71%	27.89%	2.66%	2.31%	3.37%
StmtReplacement	while	return	198	44.44%	55.56%	0.00%	42.93%	12.63%	4.55%	12.63%
StmtReplacement	while	for	96	41.67%	58.33%	0.00%	19.79%	38.54%	10.42%	38.54%
StmtReplacement	while	continue	4	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
StmtReplacement	continue	expr_stmt	48	37.50%	62.50%	0.00%	0.00%	62.50%	22.92%	62.50%
StmtReplacement	continue	if	21	23.81%	76.19%	0.00%	0.00%	76.19%	52.38%	76.19%
StmtReplacement	continue	decl_stmt	42	88.10%	11.90%	0.00%	0.00%	11.90%	9.52%	11.90%
StmtReplacement	continue	return	18	16.67%	83.33%	0.00%	0.00%	83.33%	33.33%	83.33%
StmtReplacement	continue	while	6	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
StmtReplacement	continue	for	8	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
StmtDeletion	expr_stmt	N	1645	11.00%	89.00%	5.17%	38.97%	44.86%	16.53%	50.03%
StmtDeletion	decl_stmt	N	1615	96.84%	3.16%	0.00%	0.00%	3.16%	2.41%	3.16%
StmtDeletion	if	N	1342	44.04%	55.96%	10.21%	20.94%	24.81%	10.21%	35.02%
StmtDeletion	for	N	700	0.00%	100.00%	6.86%	48.00%	45.14%	16.00%	52.00%
StmtDeletion	return	N	1733	77.26%	22.74%	0.58%	9.75%	12.41%	6.52%	12.99%
StmtDeletion	while	N	150	51.33%	48.67%	2.00%	16.00%	30.67%	7.33%	32.67%
StmtDeletion	continue	N	4	0.00%	100.00%	0.00%	0.00%	100.00%	25.00%	100.00%
ComparisonOperator	==	!=	427	0.23%	99.77%	10.54%	49.88%	39.34%	18.50%	49.88%
ComparisonOperator	==	<	469	29.00%	71.00%	3.84%	26.87%	40.30%	19.83%	44.14%
ComparisonOperator	==	<=	454	25.55%	74.45%	1.10%	23.35%	50.00%	24.01%	51.10%
ComparisonOperator	==	>	471	26.11%	73.89%	23.99%	10.19%	39.70%	16.56%	63.69%

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ComparisonOperator	==	>=	455	23.74%	76.26%	9.45%	17.58%	49.23%	24.62%	58.68%
ComparisonOperator	!=	===	38	0.00%	100.00%	7.89%	55.26%	36.84%	13.16%	44.73%
ComparisonOperator	!=	<	23	0.00%	100.00%	8.70%	17.39%	73.91%	21.74%	82.61%
ComparisonOperator	!=	<=	29	0.00%	100.00%	10.34%	62.07%	27.59%	13.79%	37.93%
ComparisonOperator	!=	>	33	0.00%	100.00%	0.00%	33.33%	66.67%	18.18%	66.67%
ComparisonOperator	!=	>=	34	0.00%	100.00%	2.94%	58.82%	38.24%	14.71%	41.18%
ComparisonOperator	<	===	409	0.00%	100.00%	6.11%	61.37%	32.52%	15.89%	38.63%
ComparisonOperator	<	!=	379	7.39%	92.61%	8.18%	19.26%	65.17%	29.29%	73.35%
ComparisonOperator	<	<=	357	0.00%	100.00%	9.52%	50.98%	39.50%	19.33%	49.02%
ComparisonOperator	<	>	368	5.43%	94.57%	8.15%	57.07%	29.35%	14.40%	37.50%
ComparisonOperator	<	>=	388	11.08%	88.92%	8.51%	54.64%	25.77%	14.18%	34.28%
ComparisonOperator	<=	===	34	0.00%	100.00%	85.29%	5.88%	8.82%	5.88%	94.11%
ComparisonOperator	<=	!=	30	0.00%	100.00%	80.00%	3.33%	16.67%	3.33%	96.67%
ComparisonOperator	<=	<	30	0.00%	100.00%	80.00%	0.00%	20.00%	6.67%	100.00%
ComparisonOperator	<=	>	29	0.00%	100.00%	72.41%	3.45%	24.14%	17.24%	96.55%
ComparisonOperator	<=	>=	24	0.00%	100.00%	75.00%	8.33%	16.67%	16.67%	91.67%
ComparisonOperator	>	===	68	0.00%	100.00%	0.00%	89.71%	10.29%	7.35%	10.29%
ComparisonOperator	>	!=	81	0.00%	100.00%	0.00%	0.00%	100.00%	45.68%	100.00%
ComparisonOperator	>	<	69	0.00%	100.00%	0.00%	56.52%	43.48%	21.74%	43.48%
ComparisonOperator	>	<=	63	0.00%	100.00%	0.00%	84.13%	15.87%	4.76%	15.87%
ComparisonOperator	>	>=	74	4.05%	95.95%	9.46%	62.16%	24.32%	9.46%	33.78%
ComparisonOperator	>=	===	91	0.00%	100.00%	64.84%	17.58%	17.58%	2.20%	82.42%
ComparisonOperator	>=	!=	100	0.00%	100.00%	9.00%	76.00%	15.00%	4.00%	24.00%
ComparisonOperator	>=	<	94	0.00%	100.00%	77.66%	21.28%	1.06%	1.06%	78.72%
ComparisonOperator	>=	<=	103	0.00%	100.00%	70.87%	27.18%	1.94%	0.97%	72.81%
ComparisonOperator	>=	>	105	0.00%	100.00%	0.00%	6.67%	93.33%	14.29%	93.33%