ID	Precondition	Input (Cart)	Expected Free Products	Expected Total Sum
TC-000	X (£): [2.15, 4.43, 10.23] Y (%): [70, 70, 70] [n, m, k]: [5, 5, 7]	0	0	0
TC-001	X (£): [2.15, 4.43, 10.23] Y (%): [70, 70, 70] [n, m, k]: [5, 5, 7]	['GR1', 'SR1', 'CF1', 'GR1']	0	22.45
TC-002	X (£): [3.11, 5, 11.23] Y (%): [70, 70, 70] [n, m, k]: [5, 5, 7]	['GR1', 'SR1', 'CF1', 'GR1', 'SR1']	['GR1', 'SR1', 'CF1', 'GR1', 'SR1']	27.45
TC-003	X (£): [2.15, 4.43, 10.23] Y (%): [70, 70, 70] [n, m, k]: [5, 5, 7]	['GR1', 'SR1', 'CF1', 'GR1', 'SR1', 'CF1']	['GR1', 'SR1', 'CF1', 'GR1', 'SR1', 'CF1']	33.62
TC-004	X (£): [2.15, 4.43, 10.23] Y (%): [100, 100, 100] [n, m, k]: [5, 5, 7]	['GR1', 'SR1', 'CF1', 'GR1', 'SR1', 'CF1', 'GR1']	['GR1', 'SR1', 'CF1', 'GR1', 'SR1', 'CF1', 'GR1']	35.77
TC-005	X (£): [3.11, 5, 11.23] Y (%): [70, 70, 70] [n, m, k]: [7, 5, 7]	['GR1', 'SR1', 'CF1', 'GR1']	0	22.45
TC-006	X (£): [2.15, 4.43, 10.23] Y (%): [70, 70, 70] [n, m, k]: [7, 5, 7]	['GR1', 'SR1', 'CF1', 'GR1', 'SR1']	0	23.39
TC-007	X (£): [2.15, 4.43, 10.23] Y (%): [70, 70, 70] [n, m, k]: [7, 5, 7]	['GR1', 'SR1', 'CF1', 'GR1', 'SR1', 'CF1']	0	33.62
TC-008	X (£): [2.15, 4.43, 10.23] Y (%): [70, 70, 70] [n, m, k]: [7, 5, 7]	['GR1', 'SR1', 'CF1', 'GR1', 'SR1', 'CF1', 'GR1']	['GR1', 'SR1', 'CF1', 'GR1', 'SR1', 'CF1', 'GR1']	29.25
TC-009	X (£): [2.15, 4.43, 10.23] Y (%): [70, 70, 70] [n, m, k]: [10, 5, 7]	['GR1', 'SR1', 'CF1', 'GR1']	0	22.45
TC-010	X (£): [3.11, 5, 11.23] Y (%): [100, 100, 100] [n, m, k]: [10, 5, 7]	['GR1', 'SR1', 'CF1', 'GR1', 'SR1']	0	27.45
TC-011	X (£): [2.15, 4.43, 10.23] Y (%): [70, 70, 70] [n, m, k]: [10, 5, 7]	['GR1', 'SR1', 'CF1', 'GR1', 'SR1', 'CF1']	0	33.62
TC-012	X (£): [2.15, 4.43, 10.23] Y (%): [70, 70, 70] [n, m, k]: [10, 5, 7]	['GR1', 'SR1', 'CF1', 'GR1', 'SR1', 'CF1', 'GR1']	0	29.25

ID	Precondition	Input (Cart)	Expected Free Products	Expected Total Sum
TC-013	X (£): [2.15, 4.43, 10.23] Y (%): [70, 70, 70] [n, m, k]: [10, 5, 7]	['GR1', 'SR1', 'CF1', 'GR1', 'SR1', 'CF1', 'GR1', 'SR1', 'CF1']	0	40.61
TC-014	X (£): [2.15, 4.43, 10.23] Y (%): [70, 70, 70] [n, m, k]: [10, 5, 7]	['GR1', 'SR1', 'CF1', 'GR1', 'SR1', 'CF1', 'GR1', 'SR1', 'CF1', 'GR1']	['GR1', 'SR1', 'CF1', 'GR1', 'SR1', 'CF1', 'GR1', 'SR1', 'CF1', 'GR1']	42.79
TC-015	X (£): [2.15, 4.43, 10.23] Y (%): [100, 100, 100] [n, m, k]: [5, 7, 10]	['GR1', 'SR1', 'CF1', 'GR1']	0	22.45
TC-016	X (£): [3.11, 5, 11.23] Y (%): [70, 70, 70] [n, m, k]: [5, 7, 10]	['GR1', 'SR1', 'CF1', 'GR1', 'SR1']	['GR1', 'SR1', 'CF1', 'GR1', 'SR1']	27.45
TC-017	X (£): [2.15, 4.43, 10.23] Y (%): [70, 70, 70] [n, m, k]: [5, 7, 10]	['GR1', 'SR1', 'CF1', 'GR1', 'SR1', 'CF1']	['GR1', 'SR1', 'CF1', 'GR1', 'SR1', 'CF1']	38.68
TC-018	X (£): [2.15, 4.43, 10.23] Y (%): [70, 70, 70] [n, m, k]: [5, 7, 10]	['GR1', 'SR1', 'CF1', 'GR1', 'SR1', 'CF1', 'GR1']	['GR1', 'SR1', 'CF1', 'GR1', 'SR1', 'CF1', 'GR1']	35.77
TC-019	X (£): [2.15, 4.43, 10.23] Y (%): [70, 70, 70] [n, m, k]: [5, 7, 10]	['GR1', 'SR1', 'CF1', 'GR1', 'SR1', 'CF1', 'GR1', 'SR1']	['GR1', 'SR1', 'CF1', 'GR1', 'SR1', 'CF1', 'GR1', 'SR1']	40.20
TC-020	X (£): [2.15, 4.43, 10.23] Y (%): [100, 100, 100] [n, m, k]: [5, 7, 10]	['GR1', 'SR1', 'CF1', 'GR1', 'SR1', 'CF1', 'GR1', 'SR1', 'CF1']	['GR1', 'SR1', 'CF1', 'GR1', 'SR1', 'CF1', 'GR1', 'SR1', 'CF1']	50.43
TC-021	X (£): [2.15, 4.43, 10.23] Y (%): [70, 70, 70] [n, m, k]: [1, 2, 3]	['GR1']	['GR1']	3.11
TC-022	X (£): [2.15, 4.43, 10.23] Y (%): [70, 70, 70] [n, m, k]: [1, 2, 3]	['GR1', 'SR1']	['GR1', 'SR1']	6.58
TC-023	X (£): [3.11, 5, 11.23] Y (%): [70, 70, 70] [n, m, k]: [1, 2, 3]	['GR1', 'SR1', 'CF1']	['GR1', 'SR1', 'CF1']	13.54
TC-024	X (£): [2.15, 4.43, 10.23] Y (%): [100, 100, 100] [n, m, k]: [1, 2, 3]	['GR1', 'SR1', 'CF1', 'GR1']	['GR1', 'SR1', 'CF1', 'GR1']	18.96
TC-025	X (£): [2.15, 4.43, 10.23] Y (%): [70, 70, 70] [n, m, k]: [3, 1, 2]	['SR1']	0	4.43

test-cases

ID	Precondition	Input (Cart)	Expected Free Products	Expected Total Sum
TC-026	X (£): [2.15, 4.43, 10.23] Y (%): [70, 70, 70] [n, m, k]: [3, 1, 2]	['SR1', 'SR1']	['SR1', 'SR1']	7.00
TC-027	X (£): [2.15, 4.43, 10.23] Y (%): [100, 100, 100] [n, m, k]: [3, 1, 2]	['SR1', 'SR1', 'SR1']	['SR1', 'SR1', 'SR1']	13.29
TC-028	X (£): [2.15, 4.43, 10.23] Y (%): [70, 70, 70] [n, m, k]: [3, 1, 2]	['SR1', 'SR1', 'SR1', 'SR1']	['SR1', 'SR1', 'SR1', 'SR1']	17.72
TC-029	X (£): [3.11, 5, 11.23] Y (%): [70, 70, 70] [n, m, k]: [1, 1, 2]	['CF1']	['CF1']	11.23
TC-030	X (£): [2.15, 4.43, 10.23] Y (%): [70, 70, 70] [n, m, k]: [1, 1, 2]	['CF1', 'CF1']	['CF1', 'CF1']	15.72
TC-031	X (£): [2.15, 4.43, 10.23] Y (%): [70, 70, 70] [n, m, k]: [1, 1, 2]	['CF1', 'CF1', 'CF1']	['CF1', 'CF1', 'CF1']	23.58
TC-032	X (£): [2.15, 4.43, 10.23] Y (%): [70, 70, 70] [n, m, k]: [1, 1, 2]	['CF1', 'CF1', 'CF1', 'CF1']	['CF1', 'CF1', 'CF1', 'CF1']	31.44