Precision Recall Curves:

Default	tf-idf	Okapi BM25	Wacky
$w_{q,t} = \ln\left(1 + \frac{N}{df_t}\right)$	$w_{q,t} = idf_t = \ln \frac{N}{df_t}$	$w_{q,t} = \max\left[0.1, \ln\left(\frac{N - df_t + 0.5}{df_t + 0.5}\right)\right]$	$w_{q,t} = \max\left[0, \ln \frac{N - df_t}{df_t}\right]$
$w_{d,t} = 1 + \ln(tf_{t,d})$	$w_{d,t} = tf_{t,d}$	$w_{d,t} = \frac{2.2 \cdot tf_{t,d}}{1.2 \cdot \left(0.25 + 0.75 \cdot \frac{docLength_d}{docLength_A}\right) + tf_{t,d}}$	$w_{d,t} = \frac{1 + \ln(tf_{t,d})}{1 + \ln(ave(tf_{t,d}))}$
$L_d = \texttt{docWeights}_d$	$L_d = \texttt{docWeights}_d$	$L_d = 1$	$L_d = \sqrt{\texttt{byteSize}_d}$

Query: what similarity laws must be obeyed when constructing aeroelastic models of heated high speed aircraft.

Relevant List: 12 13 14 15 29 30 31 37 51 52 56 57 66 95 102 142 184 185 195 378 462 486 497 858 859 875 876 879 880 - > Length (29)

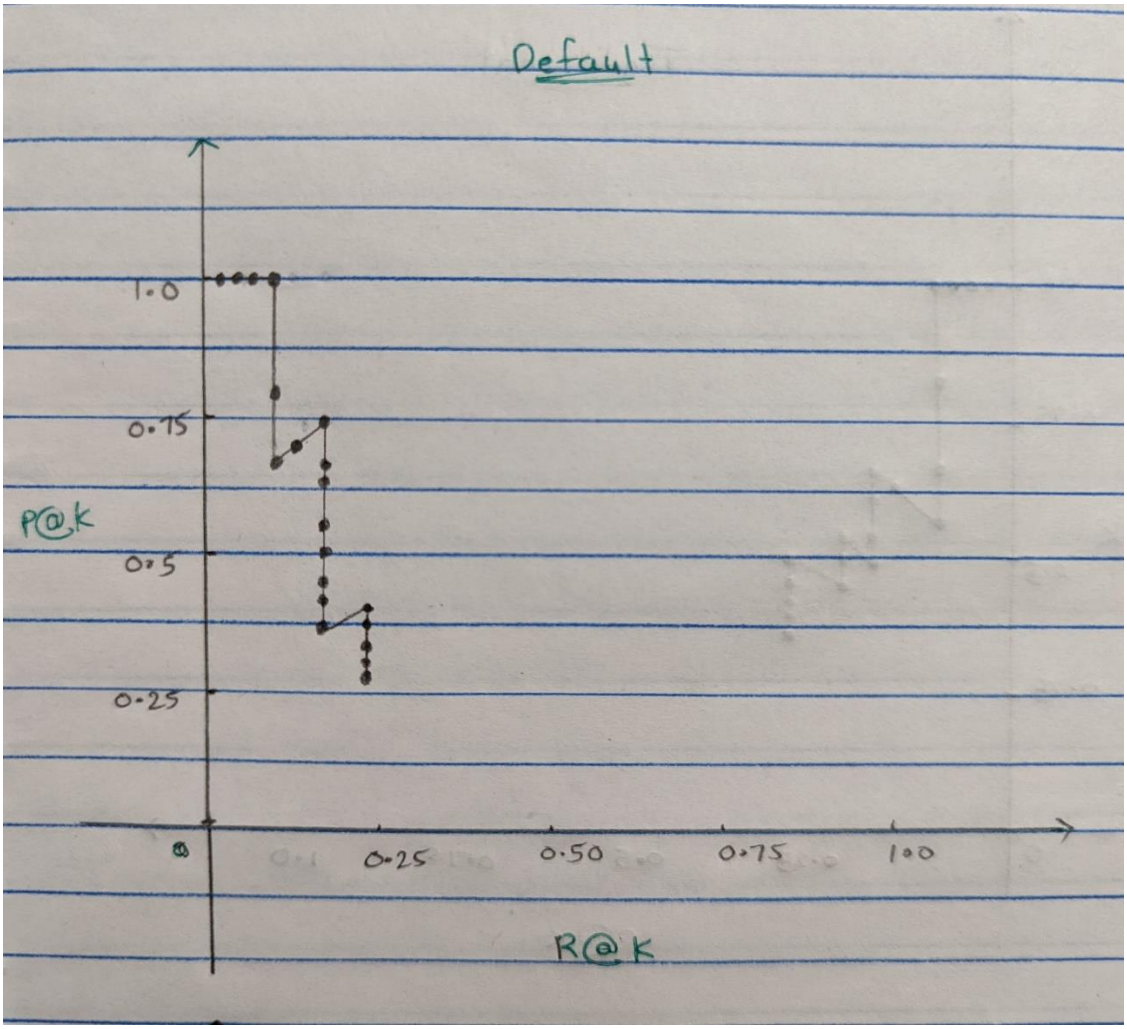
1> Default Ranking:

Returned list:

Relevant: 0051.json at index 1
Relevant: 0184.json at index 2
Relevant: 0486.json at index 3
Relevant: 0012.json at index 4
Relevant: 0013.json at index 7
Relevant: 0879.json at index 8
Relevant: 0014.json at index 16

Documents	Relevant	Precision@k	Recall@k
1	Yes	1	0.034
2	Yes	1	0.068
3	Yes	1	0.103
4	Yes	1	0.137
5	No	0.8	0.137
6	No	0.666	0.137
7	Yes	0.714	0.172
8	Yes	0.75	0.206
9	No	0.666	0.206
10	No	0.6	0.206
11	No	0.545	0.206
12	No	0.5	0.206
13	No	0.461	0.206
14	No	0.428	0.206
15	No	0.4	0.206
16	Yes	0.43	0.241
17	No	0.411	0.241
18	No	0.388	0.241
19	No	0.368	0.241
20	No	0.35	0.241

Precision - Recall Curve



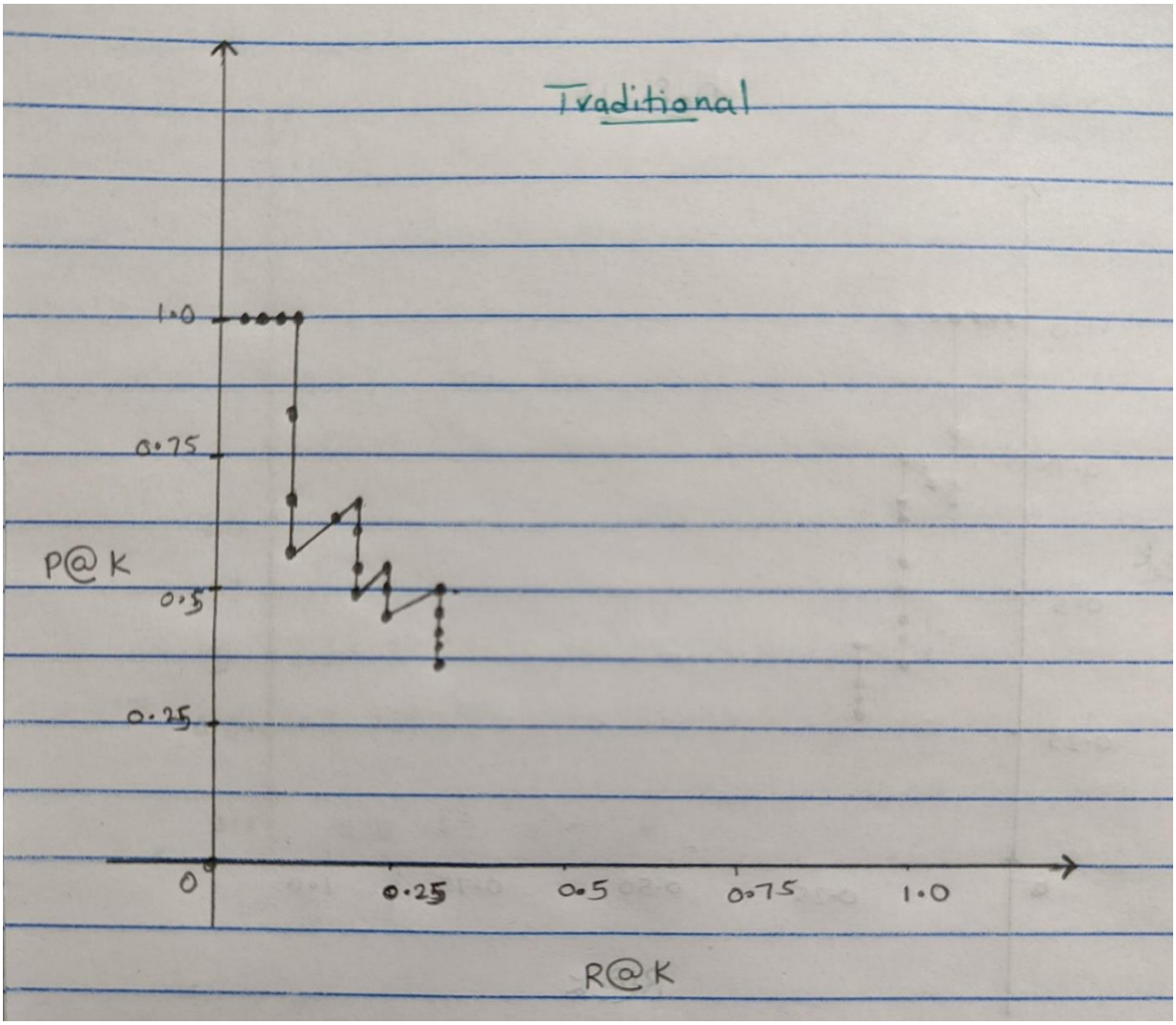
2> Traditional Ranking:

Returned list:

Relevant: 0051.json at index 1
Relevant: 0486.json at index 2
Relevant: 0184.json at index 3
Relevant: 0012.json at index 4
Relevant: 0013.json at index 8
Relevant: 0056.json at index 9
Relevant: 0879.json at index 13
Relevant: 0014.json at index 16

Documents	Relevant	Precision@k	Recall@k
1	Yes	1	0.034
2	Yes	1	0.068
3	Yes	1	0.103
4	Yes	1	0.137
5	No	0.8	0.137
6	No	0.666	0.137
7	No	0.571	0.137
8	Yes	0.625	0.172
9	Yes	0.666	0.206
10	No	0.6	0.206
11	No	0.545	0.206
12	No	0.5	0.206
13	Yes	0.538	0.241
14	No	0.5	0.241
15	No	0.466	0.241
16	Yes	0.5	0.275
17	No	0.470	0.275
18	No	0.444	0.275
19	No	0.421	0.275
20	No	0.4	0.275

Precision – Recall curve



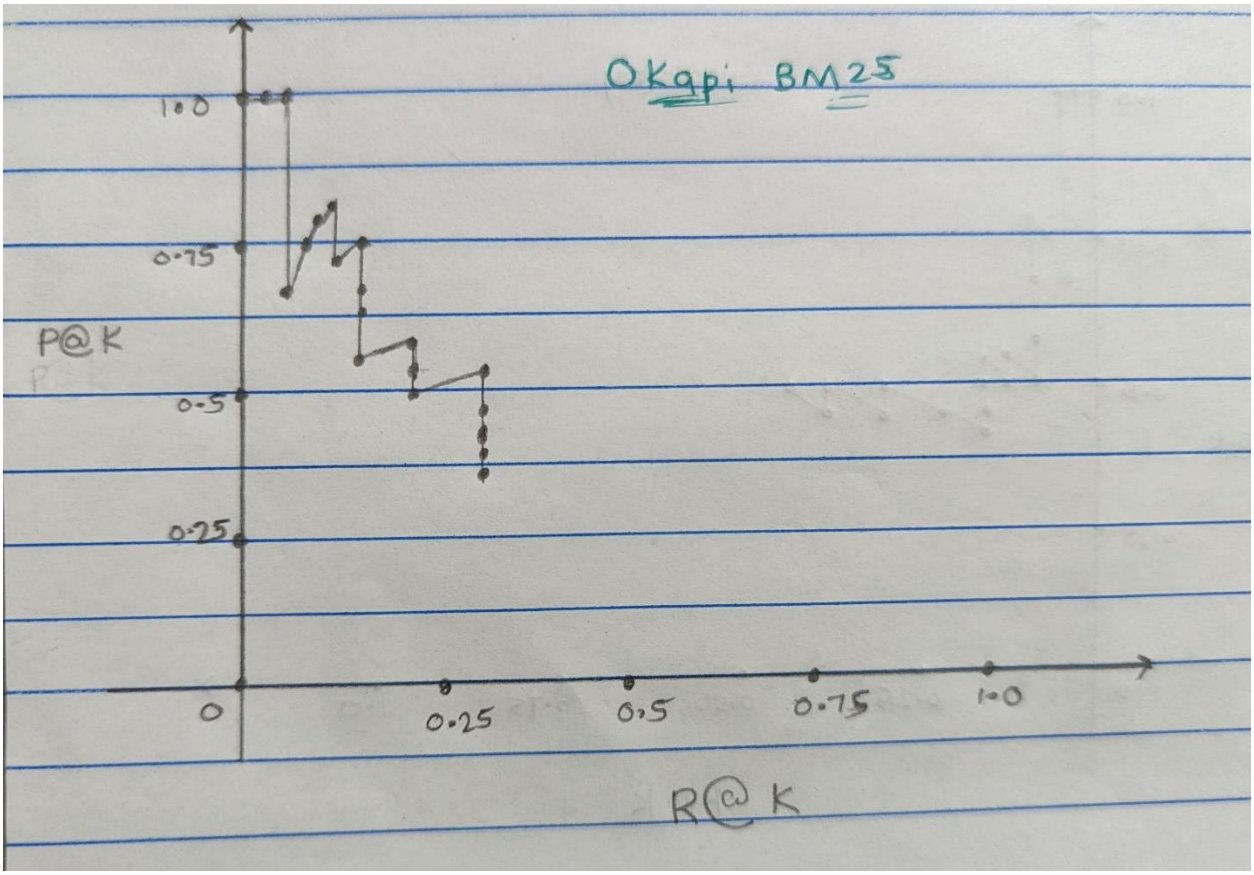
3> Okapi BM25 Ranking:

Returned list:

Relevant: 0051.json at index 1
Relevant: 0184.json at index 2
Relevant: 0012.json at index 4
Relevant: 0879.json at index 5
Relevant: 0486.json at index 6
Relevant: 0875.json at index 8
Relevant: 0013.json at index 12
Relevant: 0056.json at index 15

Documents	Relevant	Precision@k	Recall@k
1	Yes	1	0.034
2	Yes	1	0.068
3	No	0.666	0.068
4	Yes	0.75	0.103
5	Yes	0.8	0.137
6	Yes	0.833	0.172
7	No	0.714	0.172
8	Yes	0.75	0.206
9	No	0.666	0.206
10	No	0.6	0.206
11	No	0.545	0.206
12	Yes	0.583	0.241
13	No	0.538	0.241
14	No	0.5	0.241
15	Yes	0.533	0.275
16	No	0.5	0.275
17	No	0.470	0.275
18	No	0.444	0.275
19	No	0.421	0.275
20	No	0.4	0.275

Precision – Recall Curve



4> Wacky Ranking:

Returned list:

Relevant: 0879.json at index 1
Relevant: 0875.json at index 2
Relevant: 0184.json at index 4
Relevant: 0012.json at index 5
Relevant: 0051.json at index 9
Relevant: 0486.json at index 11
Relevant: 0880.json at index 15
Relevant: 0013.json at index 16
Relevant: 0102.json at index 18
Relevant: 0378.json at index 20

Documents	Relevant	Precision@k	Recall@k
1	Yes	1	0.034
2	Yes	1	0.068
3	No	0.666	0.068
4	Yes	0.75	0.103
5	Yes	0.8	0.137
6	No	0.666	0.137
7	No	0.571	0.137
8	No	0.5	0.137
9	Yes	0.555	0.172
10	No	0.5	0.172
11	Yes	0.545	0.206
12	No	0.5	0.206
13	No	0.461	0.206
14	No	0.428	0.206
15	Yes	0.466	0.241
16	Yes	0.5	0.275
17	No	0.470	0.275
18	Yes	0.5	0.310
19	No	0.473	0.310
20	Yes	0.5	0.344

Precision – Recall Curve