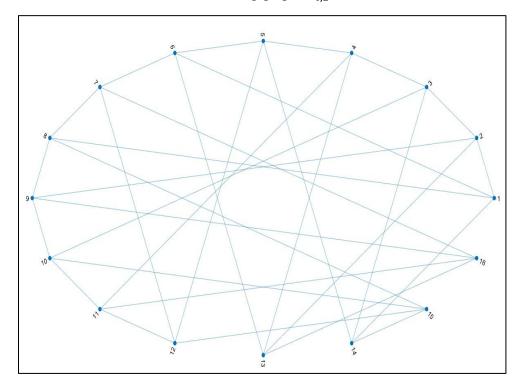
Hamming graph $H_{4,2}$



Metric dimension - 4 BIGS Index – 928

This part of the research work is presented in the International Conference on Data Engineering and Communication Technology (ICDECT-2024) (Visit: https://icdect.com/)

Extracted Metric Bases using BIGS algorithm

1.	$\{1, 2, 3, 4\}$
2.	$\{1, 2, 3, 5\}$
3.	$\{1, 2, 3, 6\}$
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134.	{1, 5, 7, 12}	177.	{1, 7, 8, 13}
135.	{1, 5, 7, 14}	178.	{1, 7, 8, 14}
136.	{1, 5, 7, 14}	179.	{1, 7, 8, 14}
130.	{1, 5, 7, 15}	180.	{1, 7, 8, 15}
137.	{1, 5, 8, 10}	181.	$\{1, 7, 9, 10\}$
139.	{1, 5, 8, 10}	182.	
	· ,		$\{1, 7, 9, 12\}$
140.	$\{1, 5, 8, 14\}$	183. 184.	$\{1, 7, 9, 13\}$
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142.	$\{1, 5, 8, 16\}$	185.	{1, 7, 9, 15}
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157.	$\{1, 6, 7, 14\}$	200.	$\{1, 8, 9, 14\}$

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209.	$\{1, 8, 12, 14\}$	252.	$\{2, 3, 8, 9\}$
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211.	{1, 8, 12, 16}	254.	$\{2, 3, 8, 11\}$
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213.	{1, 9, 10, 13}	256.	{2, 3, 8, 16}
214.	{1, 9, 10, 15}	257.	{2, 3, 9, 11}
215.	{1, 9, 12, 13}	258.	{2, 3, 9, 13}
216.	{1, 9, 12, 13} {1, 9, 12, 14}	259.	{2, 3, 9, 13}
217.	{1, 9, 12, 14} {1, 9, 12, 15}	260.	$\{2, 3, 9, 14\}$
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219.	{1, 9, 13, 14}	262.	{2, 3, 10, 11}
220.	{1, 9, 13, 16}	263.	{2, 3, 10, 13}
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222.	$\{1, 9, 15, 16\}$	265.	$\{2, 3, 10, 15\}$
223.	$\{1, 10, 12, 14\}$	266.	$\{2, 3, 10, 16\}$
224.	{1, 10, 12, 16}	267.	{2, 3, 11, 13}
225.	{1, 10, 13, 14}	268.	{2, 3, 11, 15}
226.	{1, 10, 13, 16}	269.	{2, 3, 13, 14}
227.	{1, 10, 14, 15}	270.	{2, 3, 13, 16}
228.	{1, 10, 15, 16}	271.	{2, 3, 14, 15}
229.	{1, 12, 13, 14}	272.	{2, 3, 15, 16}
230.	{1, 12, 13, 14} {1, 12, 13, 16}	273.	{2, 4, 5, 6}
230.		273. 274.	{2, 4, 5, 7}
	{1, 12, 14, 15}		(, , , ,
232.	{1, 12, 15, 16}	275.	{2, 4, 5, 10}
233.	$\{2, 3, 4, 5\}$	276.	{2, 4, 5, 13}
234.	$\{2, 3, 4, 6\}$	277.	{2, 4, 5, 14}
	$\{2, 3, 4, 9\}$	278.	$\{2, 4, 5, 15\}$
236.	$\{2, 3, 4, 10\}$	279.	$\{2, 4, 5, 16\}$
237.	{2, 3, 4, 11}	280.	$\{2, 4, 6, 7\}$
238.	$\{2, 3, 4, 14\}$	281.	$\{2, 4, 6, 9\}$
239.	$\{2, 3, 4, 16\}$	282.	$\{2, 4, 6, 11\}$
240.	$\{2, 3, 5, 8\}$	283.	{2, 4, 6, 13}
	{2, 3, 5, 11}	284.	{2, 4, 6, 14}
242.	{2, 3, 5, 13}	285.	{2, 4, 6, 15}
243.	{2, 3, 5, 14}	286.	{2, 4, 6, 16}
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287.	$\{2, 4, 7, 9\}$	330.	$\{2, 5, 10, 15\}$
288.	$\{2, 4, 7, 10\}$	331.	$\{2, 5, 10, 16\}$
289.	$\{2, 4, 7, 11\}$	332.	$\{2, 5, 11, 13\}$
290.	$\{2, 4, 7, 14\}$	333.	$\{2, 5, 11, 14\}$
291.	$\{2, 4, 7, 16\}$	334.	{2, 5, 11, 15}
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293.	{2, 4, 9, 13}	336.	$\{2, 6, 7, 8\}$
294.	$\{2, 4, 9, 14\}$	337.	{2, 6, 7, 11}
295.	{2, 4, 9, 15}	338.	{2, 6, 7, 13}
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297.	{2, 4, 10, 11}	340.	{2, 6, 7, 15}
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301.	{2, 4, 10, 16}	344.	{2, 6, 8, 13}
302.	{2, 4, 11, 13}	345.	{2, 6, 8, 14}
303.	{2, 4, 11, 14}	346.	{2, 6, 8, 15}
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305.	{2, 4, 11, 16}	348.	{2, 6, 9, 11}
306.	{2, 4, 13, 14}	349.	{2, 6, 9, 13}
307.	{2, 4, 13, 16}	350.	{2, 6, 9, 14}
308.	{2, 4, 14, 15}	351.	{2, 6, 9, 15}
309.	{2, 4, 15, 16}	352.	{2, 6, 9, 16}
310.	{2, 5, 6, 8}	353.	{2, 6, 11, 14}
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312.	{2, 5, 6, 13}	355.	{2, 6, 13, 14}
313.	{2, 5, 6, 14}	356.	{2, 6, 13, 16}
314.	{2, 5, 6, 15}	357.	{2, 6, 14, 15}
315.	{2, 5, 6, 16}	358.	{2, 6, 15, 16}
316.	{2, 5, 7, 8}	359.	{2, 7, 8, 9}
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323.	{2, 5, 8, 13}	366.	{2, 7, 9, 13}
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325.	{2, 5, 8, 15}	368.	{2, 7, 9, 16}
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328.	{2, 5, 10, 11} {2, 5, 10, 13}	370.	{2, 7, 10, 13}
329.	{2, 5, 10, 13} {2, 5, 10, 14}	371.	{2, 7, 10, 14}
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382.	{2, 8, 9, 14}	425.	${3, 4, 6, 13}$
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385.	{2, 8, 10, 11}	428.	$\{3, 4, 6, 16\}$
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387.	$\{2, 8, 10, 14\}$	430.	$\{3, 4, 9, 11\}$
388.	{2, 8, 10, 15}	431.	${3, 4, 9, 12}$
389.	$\{2, 8, 10, 16\}$	432.	${3, 4, 9, 13}$
390.	{2, 8, 11, 13}	433.	$\{3, 4, 9, 15\}$
391.	{2, 8, 11, 14}	434.	$\{3, 4, 10, 12\}$
392.	{2, 8, 11, 15}	435.	${3, 4, 10, 13}$
393.	{2, 8, 11, 16}	436.	$\{3, 4, 10, 14\}$
394.	{2, 8, 13, 14}	437.	$\{3, 4, 10, 15\}$
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402.	$\{2, 9, 10, 16\}$	445.	$\{3, 4, 12, 16\}$
403.	{2, 9, 11, 13}	446.	${3, 4, 13, 14}$
404.	{2, 9, 11, 14}	447.	$\{3, 4, 13, 16\}$
405.	{2, 9, 11, 15}	448.	$\{3, 4, 14, 15\}$
406.	{2, 9, 11, 16}	449.	$\{3, 4, 15, 16\}$
407.	{2, 10, 11, 14}	450.	$\{3, 5, 6, 8\}$
408.	{2, 10, 11, 16}	451.	$\{3, 5, 6, 11\}$
409.	{2, 10, 13, 14}	452.	${3, 5, 6, 13}$
410.	{2, 10, 13, 16}	453.	$\{3, 5, 6, 14\}$
411.	{2, 10, 14, 15}	454.	$\{3, 5, 6, 15\}$
412.	{2, 10, 15, 16}	455.	$\{3, 5, 6, 16\}$
413.	{2, 11, 13, 14}	456.	${3, 5, 8, 10}$
	{2, 11, 13, 16}	457.	${3, 5, 8, 11}$
415.	{2, 11, 14, 15}	458.	${3, 5, 8, 12}$

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459.	$\{3, 5, 8, 13\}$	502.	{3, 8, 9, 13}
460.	${3, 5, 8, 15}$	503.	{3, 8, 9, 15}
461.	${3, 5, 10, 11}$	504.	${3, 8, 10, 12}$
462.	${3, 5, 10, 13}$	505.	${3, 8, 10, 13}$
463.	$\{3, 5, 10, 14\}$	506.	${3, 8, 10, 14}$
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465.	$\{3, 5, 10, 16\}$	508.	$\{3, 8, 10, 16\}$
466.	{3, 5, 11, 12}	509.	${3, 8, 11, 12}$
467.	{3, 5, 11, 13}	510.	${3, 8, 11, 13}$
468.	${3, 5, 11, 14}$	511.	${3, 8, 11, 14}$
469.	${3, 5, 11, 15}$	512.	${3, 8, 11, 15}$
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475.	{3, 5, 13, 14}	518.	{3, 8, 14, 15}
476.	{3, 5, 13, 16}	519.	{3, 8, 15, 16}
477.	{3, 5, 14, 15}	520.	{3, 9, 10, 11}
478.	{3, 5, 15, 16}	521.	{3, 9, 10, 13}
479.	$\{3, 6, 8, 9\}$	522.	{3, 9, 10, 14}
480.	$\{3, 6, 8, 12\}$	523.	{3, 9, 10, 15}
481.	${3, 6, 8, 13}$	524.	${3, 9, 10, 16}$
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483.	$\{3, 6, 8, 15\}$	526.	{3, 9, 11, 13}
484.	$\{3, 6, 8, 16\}$	527.	{3, 9, 11, 14}
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487.	${3, 6, 9, 14}$	530.	${3, 9, 12, 13}$
488.	${3, 6, 9, 15}$	531.	${3, 9, 12, 14}$
489.	${3, 6, 9, 16}$	532.	${3, 9, 12, 15}$
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492.	${3, 6, 11, 14}$	535.	$\{3, 9, 13, 16\}$
493.	{3, 6, 11, 15}	536.	${3, 9, 14, 15}$
494.	{3, 6, 11, 16}	537.	${3, 9, 15, 16}$
495.	{3, 6, 12, 13}	538.	${3, 10, 11, 12}$
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498.	{3, 6, 12, 16}	541.	${3, 10, 11, 15}$
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501.	{3, 8, 9, 12}	544.	${3, 10, 12, 14}$

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549.	{3, 11, 13, 14}	592.	{4, 6, 9, 16}
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551.	{3, 11, 14, 15}	594.	{4, 6, 11, 13}
552.	{3, 11, 15, 16}	595.	{4, 6, 11, 14}
553.	{3, 12, 13, 14}	596.	{4, 6, 11, 15}
554.	{3, 12, 13, 16}	597.	{4, 6, 11, 16}
555.	{3, 12, 14, 15}	598.	{4, 6, 12, 13}
556.	{3, 12, 15, 16}	599.	{4, 6, 12, 14}
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558.	{4, 5, 6, 11}	601.	{4, 6, 12, 16}
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560.	{4, 5, 6, 14}	603.	{4, 6, 13, 16}
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562.	{4, 5, 7, 10}	605.	{4, 6, 15, 16}
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564.	{4, 5, 7, 11} {4, 5, 7, 12}	607.	{4, 7, 9, 10}
565.	{4, 5, 7, 12} {4, 5, 7, 13}	608.	{4, 7, 9, 11}
566.	{4, 5, 7, 15} {4, 5, 7, 15}	609.	{4, 7, 9, 12} {4, 7, 9, 13}
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	{4, 5, 10, 12}		{4, 7, 10, 12}
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572.	{4, 5, 11, 14}	615.	{4, 7, 10, 16}
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575.	{4, 5, 12, 13}	618.	{4, 7, 11, 14}
576.	{4, 5, 12, 14}	619.	{4, 7, 11, 15}
577.	{4, 5, 12, 15}	620.	{4, 7, 11, 16}
578.	{4, 5, 12, 16}	621.	{4, 7, 12, 14}
579.	{4, 5, 13, 14}	622.	$\{4, 7, 12, 16\}$
580.	{4, 5, 13, 16}	623.	$\{4, 7, 13, 14\}$
581.	{4, 5, 14, 15}	624.	$\{4, 7, 13, 16\}$
582.	{4, 5, 15, 16}	625.	$\{4, 7, 14, 15\}$
583.	${4, 6, 7, 9}$		$\{4, 7, 15, 16\}$
584.	{4, 6, 7, 12}	627.	{4, 9, 10, 11}
585.	{4, 6, 7, 13}	628.	{4, 9, 10, 12}
586.	$\{4, 6, 7, 14\}$	629.	$\{4, 9, 10, 14\}$
587.	{4, 6, 7, 15}	630.	$\{4, 9, 10, 16\}$

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634.	{4, 9, 11, 16}	677.	{5, 6, 12, 13}
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636.	{4, 9, 12, 14}	679.	{5, 6, 12, 15}
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639.	{4, 9, 13, 14}	682.	{5, 6, 13, 16}
640.	{4, 9, 13, 16}	683.	{5, 6, 14, 15}
641.	{4, 9, 14, 15}	684.	{5, 6, 15, 16}
642.	{4, 9, 15, 16}	685.	{5, 7, 8, 10}
643.	{4, 10, 11, 12}	686.	{5, 7, 8, 11}
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645.	{4, 10, 11, 14}	688.	{5, 7, 8, 13}
646.	{4, 10, 11, 15}	689.	{5, 7, 8, 15}
647.	{4, 10, 11, 16}	690.	{5, 7, 10, 11}
648.	{4, 10, 12, 13}	691.	{5, 7, 10, 13}
649.	{4, 10, 12, 14}	692.	{5, 7, 10, 14}
650.	{4, 10, 12, 15}	693.	{5, 7, 10, 15}
651.	{4, 10, 12, 16}	694.	{5, 7, 10, 16}
652.	{4, 10, 13, 14}	695.	{5, 7, 11, 12}
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654.	{4, 10, 14, 15}	697.	{5, 7, 11, 14}
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656.	{4, 11, 12, 13}	699.	{5, 7, 11, 16}
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659.	{4, 11, 12, 16}	702.	{5, 7, 12, 15}
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669.	{5, 6, 7, 16}	712.	{5, 8, 11, 13}
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671.	{5, 6, 8, 12}	714.	{5, 8, 11, 15}
672.	{5, 6, 8, 14}	715.	{5, 8, 11, 16}
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717.	{5, 8, 12, 14}	760.	{6, 7, 12, 14}
718.	{5, 8, 12, 15}	761.	{6, 7, 12, 15}
719.	{5, 8, 12, 16}	762.	{6, 7, 12, 16}
720.	{5, 8, 13, 14}	763.	$\{6, 8, 9, 11\}$
721.	{5, 8, 13, 16}	764.	$\{6, 8, 9, 12\}$
722.	{5, 8, 14, 15}	765.	$\{6, 8, 9, 14\}$
723.	{5, 8, 15, 16}	766.	$\{6, 8, 9, 16\}$
724.	{5, 10, 11, 12}	767.	$\{6, 8, 11, 12\}$
725.	{5, 10, 11, 13}	768.	$\{6, 8, 11, 13\}$
726.	{5, 10, 11, 15}	769.	$\{6, 8, 11, 14\}$
727.	{5, 10, 12, 13}	770.	$\{6, 8, 11, 15\}$
728.	{5, 10, 12, 14}	771.	$\{6, 8, 11, 16\}$
729.	{5, 10, 12, 15}	772.	$\{6, 8, 12, 13\}$
730.	{5, 10, 12, 16}	773.	$\{6, 8, 12, 14\}$
731.	{5, 10, 13, 14}	774.	{6, 8, 12, 15}
732.	{5, 10, 13, 16}	775.	{6, 8, 12, 16}
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735.	{5, 11, 12, 13}	778.	{6, 8, 14, 15}
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737.	{5, 11, 12, 15}	780.	{6, 9, 11, 12}
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740.	{5, 11, 13, 16}	783.	{6, 9, 12, 13}
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744.	{6, 7, 8, 12}	787.	{6, 9, 13, 14}
745.	{6, 7, 8, 13}	788.	{6, 9, 13, 16}
746.	{6, 7, 8, 14}	789.	{6, 9, 14, 15}
747.	{6, 7, 8, 15}	790.	{6, 9, 15, 16}
748.	{6, 7, 8, 16}	791.	{6, 11, 12, 14}
749.	{6, 7, 9, 11}	792.	{6, 11, 12, 16}
750.	{6, 7, 9, 13}	793.	{6, 11, 13, 14}
751.	{6, 7, 9, 14}	794.	{6, 11, 13, 16}
752.	{6, 7, 9, 15}	795.	{6, 11, 14, 15}
753.	{6, 7, 9, 16}	796.	{6, 11, 15, 16}
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755.	{6, 7, 11, 13}	798.	{6, 12, 13, 16}
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759.	{6, 7, 12, 13}	802.	{7, 8, 9, 11}
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804.	{7, 8, 9, 13}	847.	$\{7, 10, 12, 15\}$
805.	{7, 8, 9, 15}	848.	{7, 10, 12, 16}
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807.	{7, 8, 10, 13}	850.	{7, 11, 12, 15}
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810.	{7, 8, 10, 16}	853.	{7, 11, 14, 15}
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817.	{7, 8, 12, 16}	860.	{8, 9, 10, 12}
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819.	{7, 8, 13, 16}	862.	{8, 9, 10, 16}
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823.	{7, 9, 10, 13}	866.	{8, 9, 11, 16}
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825.	{7, 9, 10, 15}	868.	{8, 9, 12, 14}
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827.	{7, 9, 11, 12}	870.	{8, 9, 12, 16}
828.	{7, 9, 11, 13}	871.	{8, 9, 13, 14}
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830.	{7, 9, 11, 15}	873.	{8, 9, 14, 15}
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832.	{7, 9, 12, 13}	875.	{8, 10, 11, 12}
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928.

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