Umformen quadratischer Terme mit dem Satz von Vieta

#222025

(Fülle die Spalten x1 und x2 aus, ergänze also die Linearfaktoren.)

Aufg.	a x² +	b x +	c	=	a (x -	x1	)	(x -	x2	)
1	x² +	26 x +	168	=	(x +		)	(x +		)
2	x² +	27 x +	180	=	(x +		)	(x +		)
3	x² -	21 x +	90	=	(x -		)	(x -		)
4	x² -	2 x -	35	=	(x +		)	(x -		)
5	x² -	25 x +	156	=	(x -		)	(x -		)
6	x² -	5 x -	66	=	(x -		)	(x +		)
7	x² +	3 x -	10	=	(x +		)	(x -		)
8	x² -	18 x +	81	=	(x -		)	(x -		)
9	x² +	4 x +	3	=	(x +		)	(x +		)
10	x² +	20 x +	91	=	(x +		)	(x +		)
11	x² -	18 x +	56	=	(x -		)	(x -		)
12	x² -	20 x +	75	=	(x -		)	(x -		)
13	x² +	2 x -	143	=	(x -		)	(x +		)
14	x² -	0 x -	4	=	(x -		)	(x +		)
15	x² -	15 x +	36	=	(x -		)	(x -		)
16	x² +	14 x +	40	=	(x		)	(x		)
17	x² +	3 x -	70	=	(x		)	(x		)
18	x² +	8 x -	20	=	(x		)	(x		)
19	x² +	x -	42	=	(x		)	(x		)
20	x² -	1 x -	156	=	(x		)	(x		)
21	x² -	12 x +	32	=	(x		)	(x		)
22	x² +	3 x -	54	=	(x		)	(x		)
23	x² -	12 x +	32	=	(x		)	(x		)
24	x² +	10 x -	56	=	(x		)	(x		)
25	x² -	11 x -	12	=	(x		)	(x		)
26	x² +	20 x +	91	=	(x		)	(x		)
27	x² -	14 x +	49	=	(x		)	(x		)
28	x² +	17 x +	42	=	(x		)	(x		)
29	x² -	1 x -	110	=	(x		)	(x		)
30	x² -	16 x +	48	=	(x		)	(x		)
31	3 x² +	3 x -	168	=	3 (x -		)	(x +		)
32	x² +	5 x -	0	=	(x -		)	(x +		)
33	3 x² -	9 x -	12	=	3 (x +		)	(x -		)
34	3 x² -	0 x -	300	=	3 (x +		)	(x -		)
35	3 x² +	51 x +	198	=	3 (x +		)	(x +		)
36	-2 x² -	52 x -	338	=	-2 (x +		)	(x +		)
37	-1 x² +	11 x +	60	=	-1 (x +		)	(x -		)
38	-2 x² -	10 x -	0	=	-2 (x -		)	(x +		)
39	-4 x² -	12 x -	8	=	-4 (x +		)	(x +		)
40	-2 x² +	20 x -	0	=	-2 (x -		)	(x -		)

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Lösungen

Aufg.	a	(x	-	x1	)	(x	-	x2	)
1		(x	+	12	)	(x	+	14	)
2		(x	+	12	)	(x	+	15	)
3		(x	-	15	)	(x	-	6	)
4		(x	+	5	)	(x	-	7	)
5		(x	-	12	)	(x	-	13	)
6		(x	-	11	)	(x	+	6	)
7		(x	+	5	)	(x	-	2	)
8		(x	-	9	)	(x	-	9	)
9		(x	+	3	)	(x	+	1	)
10		(x	+	7	)	(x	+	13	)
11		(x	-	4	)	(x	-	14	)
12		(x	-	5	)	(x	-	15	)
13		(x	-	11	)	(x	+	13	)
14		(x	-	2	)	(x	+	2	)
15		(x	-	3	)	(x	-	12	)
16		(x	+	4	)	(x	+	10	)
17		(x	+	10	)	(x	-	7	)
18		(x	-	2	)	(x	+	10	)
19		(x	-	6	)	(x	+	7	)
20		(x	+	12	)	(x	-	13	)
21		(x	-	4	)	(x	-	8	)
22		(x	-	6	)	(x	+	9	)
23		(x	-	4	)	(x	-	8	)
24		(x	-	4	)	(x	+	14	)
25		(x	+	1	)	(x	-	12	)
26		(x	+	7	)	(x	+	13	)
27		(x	-	7	)	(x	-	7	)
28		(x	+	14	)	(x	+	3	)
29		(x	-	11	)	(x	+	10	)
30		(x	-	12	)	(x	-	4	)
31	3	(x	-	7	)	(x	+	8	)
32		(x	-	0	)	(x	+	5	)
33	3	(x	+	1	)	(x	-	4	)
34	3	(x	+	10	)	(x	-	10	)
35	3	(x	+	6	)	(x	+	11	)
36	-2	(x	+	13	)	(x	+	13	)
37	-1	(x	+	4	)	(x	-	15	)
38	-2	(x	-	0	)	(x	+	5	)
39	-4	(x	+	2	)	(x	+	1	)
40	-2	(x	-	0	)	(x	-	10	)