

Proporziunalitad

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In vehichel carrescha cun ina spertadad da 40 km/h.

- a Con lunsch vegn el en 30 min, 12 min, 1 h 30 min, 6 h 40 min?
- b Con ditg eis el sin via per 10 km, 5 km, 16 km, 100 km?

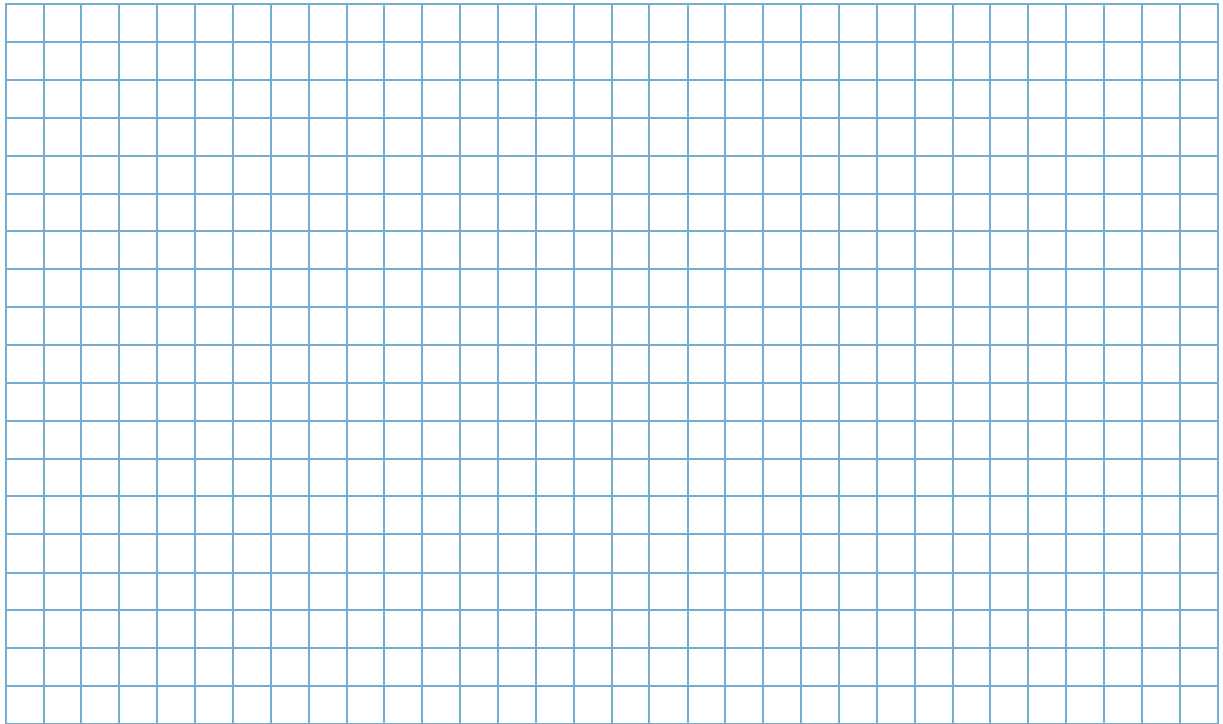
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Ord ina spina flessegian ella media 24 l/min.

- a Conta aua flessegia en 6 s, 3 min 30 s, 6 min 45 s, 1 h 10 min?
- b Con ditg cuoza ei d'emplenir in bogn da 150 l, 200 l, 7.2 l, 8100 l?

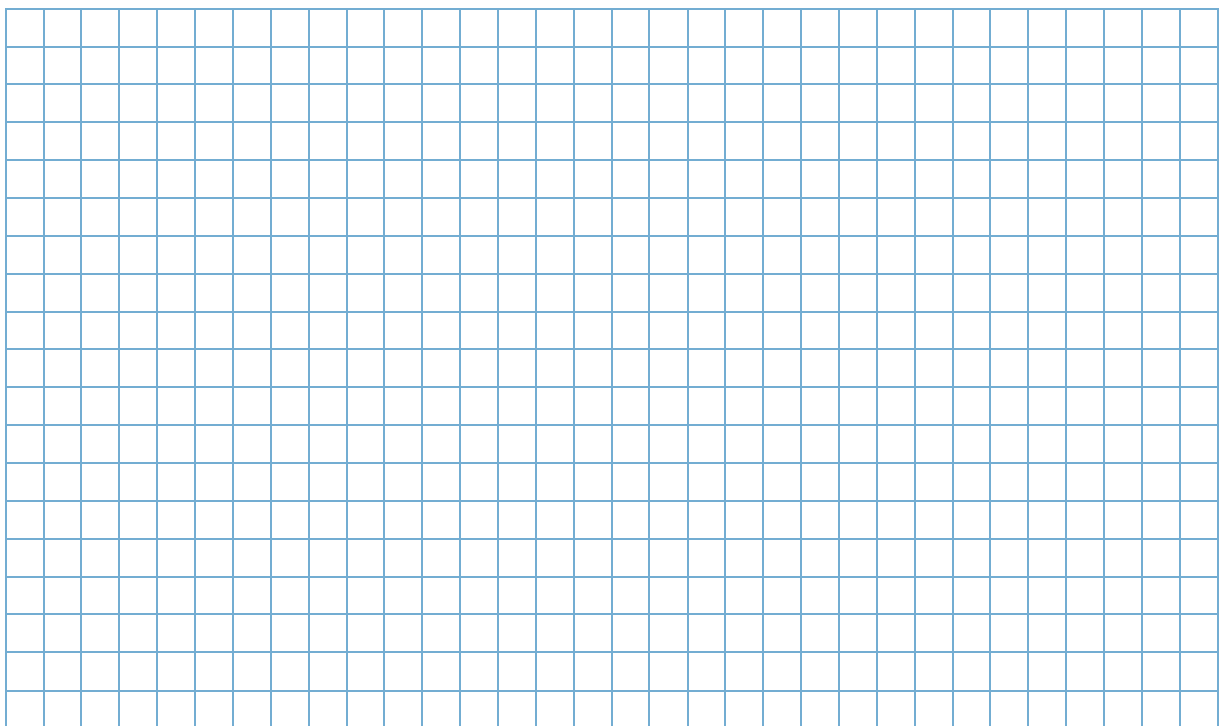
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In vehichel carrescha en 24 min 6 km. Quenta la spertada media dil vehichel.



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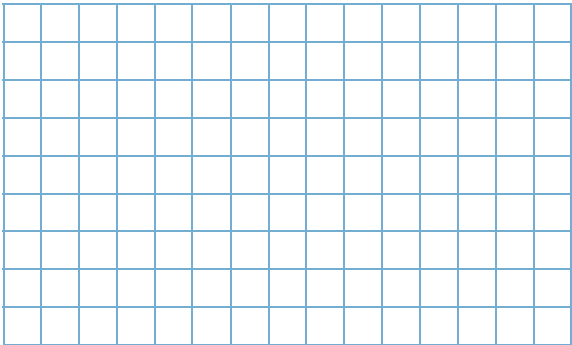
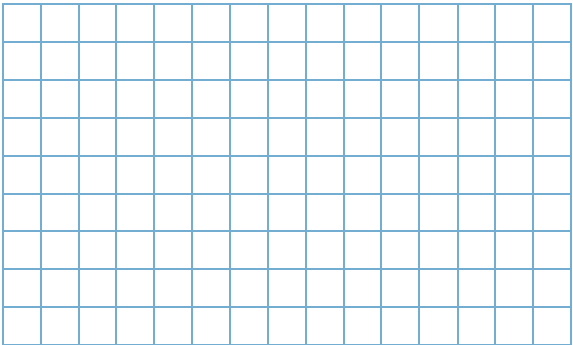
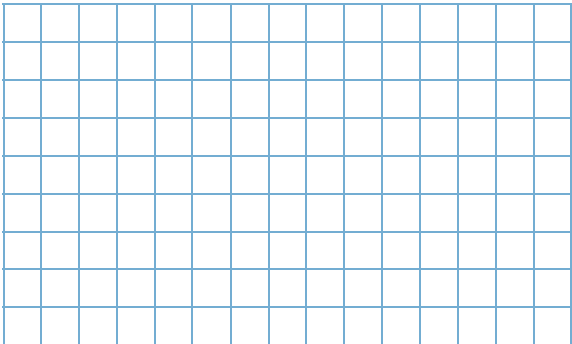
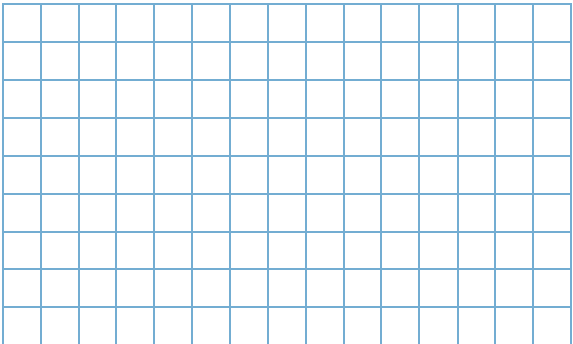
Tras in bischel flessegia en 3 min e 20 s 1 l aua. Determinescha la deflussiun media en l/min sco era en l/h.



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Ein ils dus pèrs da valeta proporziunals in cun l'auter?	
90 km — 1 h 30 min 45 km — 45 min	4 h 10 min — 225 km 2 h — 110 km
30 l — 3 min 30 s 20 l — 2 min 50 s	3 h 15 min — 260 l 1 h 45 min — 140 l
4800 frs. — 44 h 2000 frs. — 10 h	75 tocs — 3 h 175 tocs — 7 h

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Tgei pèr da valeta ei buca proporziunals cun ils dus auters? Cruschescha. Mida ina valeta dil pèr da valeta aschia che tuts ein proporziunals in cun l'auter.	
5 h — 285 km 30 min — 27.5 km 3 h 30 min — 199.5 km 	180 ml — 15 s 720 ml — 1 min 1.8 l — 3 min 30 s 
30 cm — 3 h 40 min 1 m — 12 h 30 min 80 cm — 10 h 	9 s — 99 km 2 min — 1200 km 1 h — 39 600 km 

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Cu ein dus pèrs da valeta proporziunals in cun l'auter? Declara cun in exempel.

Proporziunalitad inversa

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120 cartas vegnan repartidas sin 2, 5, 8, 10 persunas. Contas cartas survegn mintga persuna?

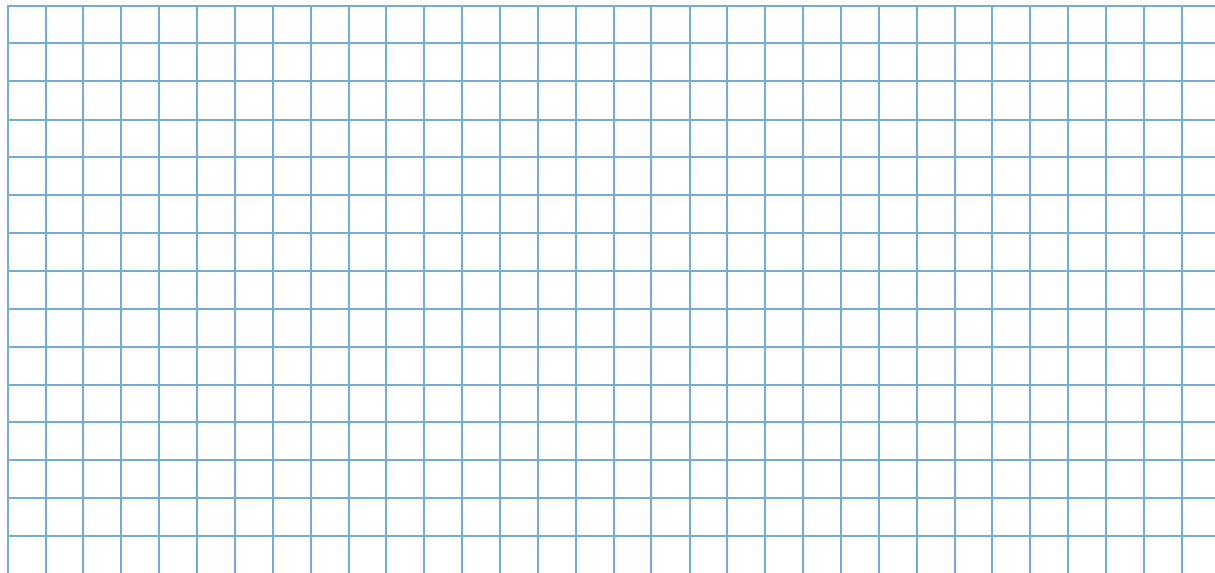
Ina sdrema da pupi savess vegnir tagliada en 4 tocs d'ina lunghezia da 45 cm.
Con liungs fussen ils tocs, sche la sdrema vegness tagliada en 3, 6 e 9 tocs?
Cons tocs dess ei, sche la sdrema da pupi vegness tagliada en tocs da 2 cm, 10 cm, 18 cm ?

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Signur Moor carrescha cun ina spertadad media da 50 km/h.

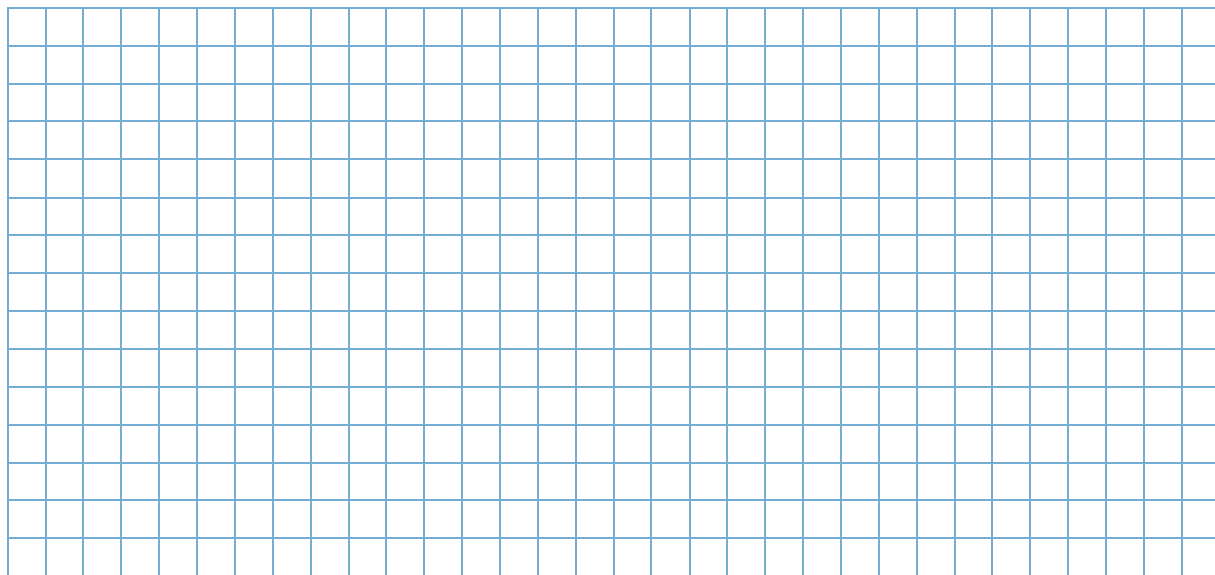
Suenter 45 min ha el cuntunschiu sia finamira.

Con spert sto signur Moor carrar per arrivar al final, 30 min, 1 h 15 min, 20 min, 2 h ?



Flessegia ord ina spina 36 l/min, ei ina butschida emplenida en 12 min.

Con ditg cuoza l'emplenida dalla butschida, sch'ei cuora ord la spina 72 l/min, 48 l/m, 20 l/min, 60 l/min ?



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Cura ein dus pèrs da valeta proporziunals inversamein in cun l'auter? Declara cun in exempel.

Pèrs da valeta e tabellas da valetas

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Cumpletescha las valetas ella tabella. Noda dus ulteriurs pèrs da valeta.					
diember da cups cun tschereschas	—	peisa totala dallas tschereschas	diember da cups cun tschereschas	—	peisa dallas teschereschas per cup
3	—			—	200 g
5	—	2.5 kg	108	—	
7	—	3.5 kg	54	—	500 g
12	—		45	—	600 g
	—	7.5 kg		—	900 g
	—			—	
	—			—	
	—			—	
	—			—	
tschereschas aunc buca vendidas	—	tschereschas vendidas en tut	peisa dallas tschereschas	—	diember pettas da tschereschas
16.5 kg	—	1.5 kg		—	3
	—	2.5 kg	2.4 kg	—	4
12 kg	—		4.2 kg	—	
10 kg	—	8 kg	5.4 kg	—	9
	—	12.5 kg		—	15
	—			—	
	—			—	
	—			—	

••

Completescha las valetas ella tabella. Noda dus ulteriurs pèrs da valeta.			
diember maschinas	—	dis da lavur duvrai	
3	—		
4	—	12	
6	—	8	
8	—		
10	—		
	—		
	—		
	—		
diember maschinas	—	producziun	
	—	3600 tocs	
3	—		
7	—	12 600 tocs	
15	—	27 000 tocs	
25	—		
	—		
	—		
	—		
peisa brutta (cuntegn e pachetadi)	—	peisa netto (cuntegn)	
1.5 kg	—		
4.26 kg	—	3.5 kg	
	—	5.354 kg	
7.3 kg	—	6.54 kg	
8.8 kg	—		
	—		
	—		
	—		
peisa totala dil material furniu	—	diember da dis d'elavuraziun	
	—	3	
3 t	—	4	
6.75 t	—		
7.5 t	—	10	
	—	13	
	—		
	—		
	—		

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Scriva dus pèrs da valeta che ein ..

- a proporziunals in cun l'auter.
- b proporziunals invers in cun l'auter.
- c ni proporziunals ni proporziunals invers in cun l'auter.

Surfatschas

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Tgei mesira circa 10 cm ² ? Noda dus exempels.
.....
Tgei mesira circa 4 dm ² ? Noda dus exempels.
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Tgei mesira circa 2.5 m ² ? Noda dus exempels.
.....
Tgei mesira circa 15 m ² ? Noda dus exempels.
.....

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Mida las mesiras.	
30 mm ² = ... cm ²	0.25 cm ² = ... mm ²
300 cm ² = ... dm ²	2.5 dm ² = ... cm ²
3 dm ² = ... m ²	25 m ² = ... dm ²

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Mida las mesiras.	
7000 cm ² = ... m ²	96.5 dm ² = ... mm ²
705 cm ² = ... mm ²	0.9 dm ² = ... m ²
7.5 dm ² = ... m ²	0.095 m ² = ... cm ²

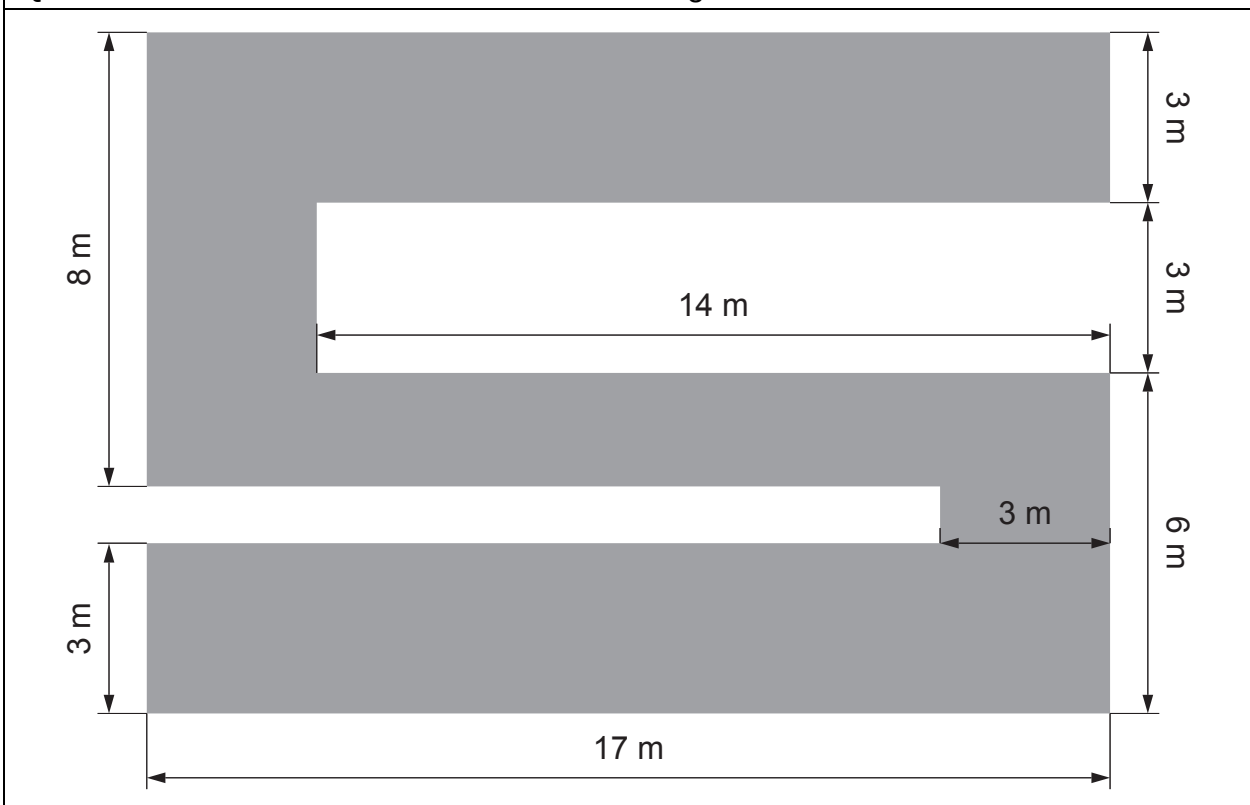
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Quenta la surfatscha e la circumferenza dils dretganhels e dil quadrat.

lunghezia	ladezia	surfatscha	circumferenza
9 mm	6 mm		
14 cm	30 cm		
25 m	8 m		
15 m	15 m		

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Quenta la surfatscha e la circumferenza dalla figura.



Volumens

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Tgei ha circa il volumen da 200 cm³? Noda dus exempels.

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Tgei ha circa il volumen da 1.2 dm³? Noda dus exempels.

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Tgei ha circa il volumen da 15 dm³? Noda dus exempels.

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Tgei ha circa il volumen da 750 mm³? Noda dus exempels.

.....

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Mida las mesiras.

$$5000 \text{ mm}^3 = \dots \text{ cm}^3$$

$$500 \text{ cm}^3 = \dots \text{ dm}^3$$

$$50 \text{ dm}^3 = \dots \text{ m}^3$$

$$35 \text{ m}^3 = \dots \text{ dm}^3$$

$$0.035 \text{ dm}^3 = \dots \text{ cm}^3$$

$$3.5 \text{ cm}^3 = \dots \text{ mm}^3$$

••

Mida las mesiras.

$$406 \text{ mm}^3 = \dots \text{ dm}^3$$

$$406 \text{ cm}^3 = \dots \text{ l}$$

$$0.46 \text{ dm}^3 = \dots \text{ mm}^3$$

$$1050 \text{ dm}^3 = \dots \text{ cm}^3$$

$$0.15 \text{ m}^3 = \dots \text{ l}$$

$$1.5 \text{ l} = \dots \text{ cm}^3$$

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Cumpletescha la tabella cullas valetas che mauncan.

quader

lunghezia	ladezia	altezia	volumen
8 cm	5 cm	4 cm	
5 dm	4 dm	3 dm	
	5 m	2 m	70 m ³

quadrel

lunghezia digl ur	volumen
5 m	
20 mm	

••

Cumpletescha la tabella cullas valetas che mauncan.

quader

lunghezia	ladezia	altezia	volumen
25 cm	12 cm	4 cm	
	6 dm	5 dm	450 dm ³
10 m	7 m		35 m ³

quadrel

lunghezia digl ur	volumen
	1331 dm ³
400 mm	

Quens da text

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Dessegna pil text ina skizza. Noda tiu quen e rispunda alla damonda.

Silas fa ina excursiun cun velo. La partenza ei allas 9.30 h. Suenter 2h 45 min contonscha el il pli ault punct dalla excursiun. Leu fa el 40 min pausa da miezdi e descenda lu anavos al punct da partenza. Leu arriva Silas allas 13.45 h. Con ditg cuoza la descensiun?

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Dessegna pil text ina skizza. Noda tiu quen e rispunda alla damonda.

Lorena fa ina excursiun cun velo. La partenza ei allas 8.05 naven da casa. Pils emprems 27 km drova ella 1 $\frac{1}{2}$ h, lu fa ella ina pausa da 10 min. Il secund tschancun fa ella cun ina spertadad media da 12 km/h e contonscha allas 11.25 h in liug da biala vesta. Leu fa ella 25 min pausa da miezdi. Silsuenter carrescha ella senza pausa 2 $\frac{3}{4}$ h anavos a casa. Leu indichescha l'ura da kilometers dil velo ch'ella hagi fatg total 24 km. Con ei la spertadad media da Lorena pil tschancun naven dil liug da biala vesta entochen a casa?

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Dessegna pil text ina skizza. Noda tiu quen e rispunda alla damonda.

Naomi e Selma habiteschan 24 km ina da l'autra .

- a Naomi carrescha a casa 7.5 km en direcziun dalla habitaziun da Selma. Selma carrescha il medem mument era naven da casa 6.8 km en direcziun dalla habitaziun da Naomi. Con lunsch naven ein ellas duas ussa ina da l'autra?
- b Naomi carrescha naven da casa 11.7 km en direcziun dalla habitaziun da Selma. Selma carrescha il medem temps era naven da casa 15.6 km en direcziun dalla habitaziun da Naomi. Con lunsch naven ein ellas duas ussa ina da l'autra?

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Dessegna pil text ina skizza. Noda tiu quen e rispunda alla damonda.

Dario e Finn habiteschan 22 km in da l'auter .

- a Dario banduna sia habitaziun allas 14.45 e carrescha cun ina spertadad da 18 km/h en direcziun dalla habitaziun da Finn.
Finn banduna la habitaziun allas 14.50 e carrescha cun ina spertadad da 15 km/h en direcziun dalla habitaziun da Dario.
Con lunsch naven in da l'auter ein els dus allas 15.10?
- b L'auter di banduna Dario sia habitaziun allas 14.45 e carrescha cun ina spertadad da 18 km/h en direcziun dalla habitaziun da Finn.
Finn banduna sia habitaziun allas 14.25 e carrescha cun ina spertadad da 15 km/h en direcziun dalla habitaziun da Dario.
Con lunsch naven in da l'auter ein els dus quei di allas 15.10?

Elavuraziun da datas

Tier ina retschercha ein 20 persunas vegnidas dumandadas tgeinin dils quater sports che interesseschi il pli fetg, ballapei, hockey sil glatsch, ir cun skis ni tennis?

num	schlatteina	vegliadetgna	sport
Mike	masculin	17	ballapei
Anna	feminin	56	ir cun skis
Peter	masculin	49	tennis
Jose	masculin	22	hockey
Alina	feminin	19	tennis
Giulia	feminin	15	ballapei
Paavo	masculin	36	tennis
Wanda	feminin	24	ballapei
Elisabeth	feminin	62	ir cun skis
Willy	masculin	71	tennis
Morris	masculin	14	hockey
Sandy	feminin	38	ballapei
Mimi	feminin	27	tennis
Michelle	feminin	28	ir cun skis
Jacques	masculin	34	ballapei
Sämi	masculin	55	hockey
Billy	masculin	17	ballapei
Tamara	feminin	44	ir cun skis
Gabriela	feminin	41	tennis
Tom	masculin	25	ballapei

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Valetescha la retschercha.

- Determinescha il diember da dunnas ed il diember dad umens che han priu part alla retschercha.
- Tgei sport ei vegnius numnaus il pli savens? Tgei sport il pli pauc? Fai ina gliesta da rangaziun.
- Dessegna in diagram da petgas per l'elecziun dils umens ed in diagram da petgas per las dunnas.
- Formulescha duas declaronzas che ti sas leger ord ils dus diagrams.

•• Valetescha la retschercha.

- Determinescha la media da vegliadetgna dallas persunas.
- Tgei interessescha il pli fetg ils sut 40 onns: ballapei ni tennis?
- Tgei interessescha las dunnas sur 30 il pli fetg: tennis ni ir cun skis?
- Dessegna in diagram da petgas per l'elecziun da quels sut 30 onns ed in diagram da petgas per l'elecziun da quela sur 30 onns.
- Formulescha treis declaronzas che ti sas leger ord ils dus diagrams da petgas.

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Retscherca: «Con sport en ina jamna?»

veglia- detgna	schlatteina	pli pauc che 30 min	30 min tochen 1 h	1 h tochen 2 h	2 h tochen 3 h	pli che 3 h
15	f					✓
36	m				✓	
50	m		✓			
25	f			✓		
81	m	✓				
17	f			✓		
37	f		✓			
53	m	✓				
48	m				✓	
41	f		✓			
24	m					✓
34	m					✓
13	f					✓
26	m				✓	
18	m					✓
44	f		✓			
64	m	✓				
52	f		✓			
39	m					✓
23	m		✓			

Valetescha la retscherca.

Formulescha treis pretensiuns che ti sas leger ord la evaluaziun.

Cumbinaziuns

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Fuorma successiuns cun letras.

- a Noda tuttas successiuns da letras che ti sas formar cun las letras B, E, I ed L. Mintga letra sto vegnir avon exactamein ina gada en mintga successiun da letras. Noda tuttas successiuns pusseivlas.
- b Noda tuttas successiuns da letras che ti sas formar cun duas dallas quater letras B, E, I ed L. Mintga letra astga vegnir avon en ina successiun da letras maximum ina gada. Noda tuttas successiuns pusseivlas.

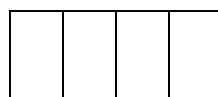
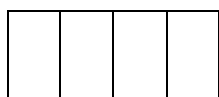
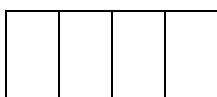
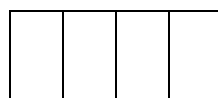
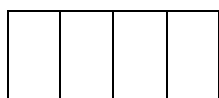
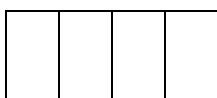
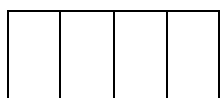
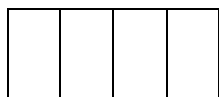
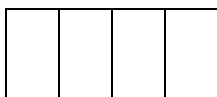
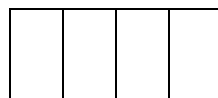
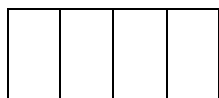
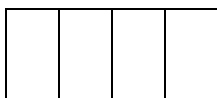
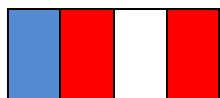
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Fuorma successiuns cun letras.

- a Noda tuttas successiuns da letras che ti sas formar cullas tschun letras K, E, E, L ed L. Mintga successiun da letras sto consistir ord tuttas tschun letras. Noda tuttas successiuns pusseivlas.
- b Noda tuttas successiuns da letras che ti sas formar cun duas dallas tschun letras K, E, E, L ed L. Noda tuttas successiuns pusseivlas.



Colurescha mintgamai dus dils quater camps tgietschen ed in camp blau.
Cons differents musters anflas ti?

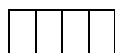
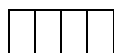
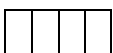
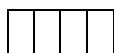
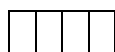
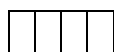
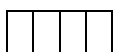
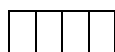
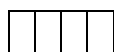
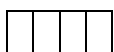
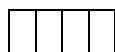
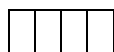
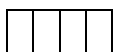


Mida la cumbinaziun da colurs ni il diember da camps. Noda il pensum midau.

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Emprova da slijar il pensum midau.



Quens reals

Ei dat buca pensums per quei tema.

Schazegiar

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Contas ballas cul diameter da 7 cm han circa plaz ella scatla cun las mesiras 35 cm x 50 cm x 20 cm? Noda tias ponderaziuns.



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In zeiver ei emplenius cun crappa tuttina gronda. El peisa 27.4 kg. Alina pren ora 10 tocs e metta els sin stadera. La crappa peisa 780 g. Ella pren puspei 10 craps ord il zeiver e metta quels sin stadera. Quella crappa peisa 860 g. Schazegia il diember da crappa el zeiver. Noda tias ponderaziuns.

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Per ina persuna vegn quintau la media da 50 g ris per tschavera. La famiglia Demont cun 4 persunas maglia 2 tochen 4 gadas ris per jamna. Con ris drova la famiglia Demont circa en in onn? Calclescha approximativamein la quantitat. Noda tias ponderaziuns.

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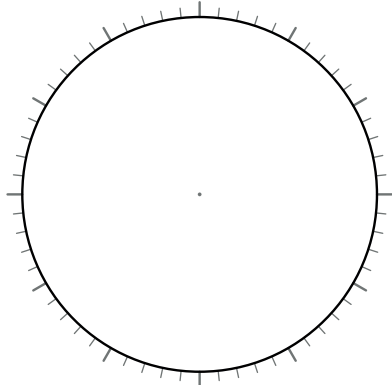
In auto pign ei circa 3 m liungs. In bus ei circa 12 m liungs. Cons autos stattan circa en ina colonna da 5 km lunghezia? Schazegia il diember. Noda tias ponderaziuns.

Diagrams

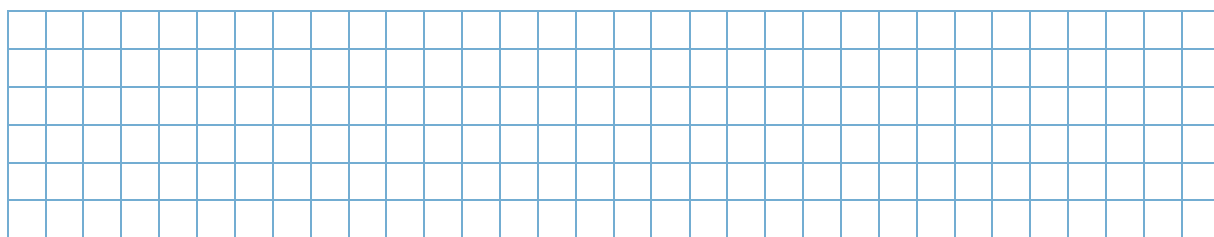
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Da 24 scolaras e scholars vulan 8 ir a kino, 6 el bogn, 4 el zoo, 4 spel lag ed il rest el museum.

a Presenta las parts en in diagram circular.



b Presenta las parts en in diagram da sdremas.



●●

Presenta las datas dalla tabella en ina diagram da petgas, in diagram da lingias, in diagram circular ed en in diagram da sdremas.

di dalla jamna	coclas rimnadas en kg
gliendisdis	2.5
mardis	2.0
mesjamna	1.0
gievgia	3.0
venderdis	3.5

diagram da petgas:

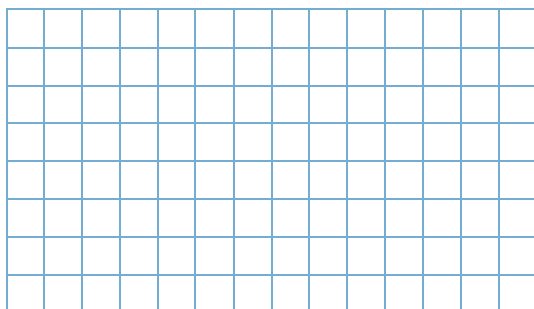


diagram da lingias:

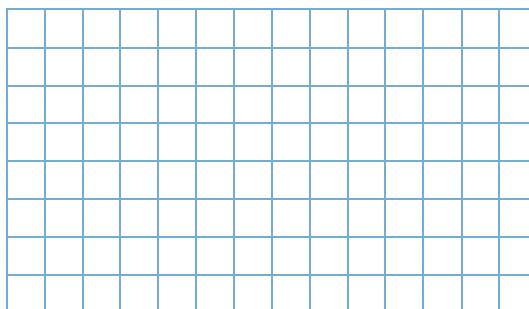


diagram circular:

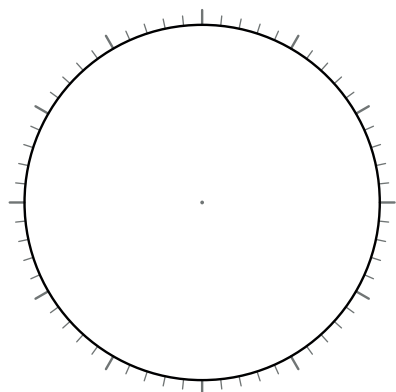
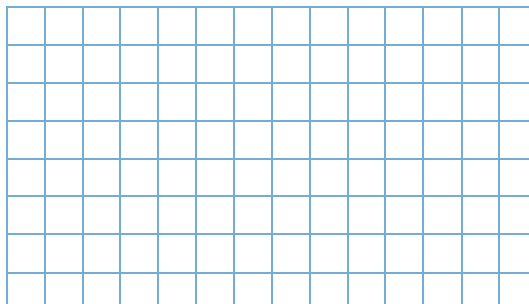


diagram da sdremas:



Descriva tgei che ti sas veser bein els dus diagrams.

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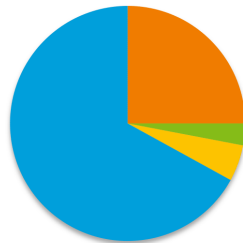
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Ils dus diagrams circulars muossan las parts dil cuntegn da duas victualias (A e B).

Cumpargelia ils dus diagrams circulars. Noda duas declaronzas.

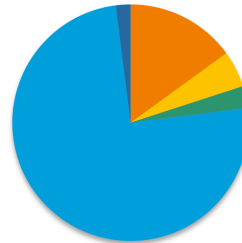
A:



Componentas
100 g cuntegnan:

- zucher (brin)
- grass (verd)
- alv d'iev (oransch)
- aua (blau)

B:



Componentas
100 g cuntegnan:

- zucher ed amet (brin)
- alv d'iev (oransch)
- substanzas da ballast (stgirverd)
- aua (blau)
- auter (stgirblau)

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Casualidad e probabilidad

Ei dat buca pensums per quei tema.

Regla e strategias

Ei dat buca pensums per quei tema.