

SmartMaths

Standard 1

SAMPLE



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BOWLER	OVERS	RUNS	WICKETS
Arthur	6	7	2
James	7	11	3
Williams	7	12	1
Anderson	2	3	0
Adams	5	12	1
Adams	6	14	2
Bird	1	11	0

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SmartMaths Infant 1	9781036012052	9781036017552
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SmartMaths Standard 1	9781036012076	9781036017576
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As students work through the chapters, they will find a range of features, including:

- **Talking maths:** This feature supports vocabulary and communication skills.
- **Real-life maths:** This feature links mathematical concepts to real-world applications.
- **Mental maths:** This feature includes short questions for students to work out mentally (in their heads).
- **Maths at home:** This feature provides activities that can be completed outside the classroom with a parent or carer.
- **Problem solving:** This feature gives students a chance to apply their mathematical skills to problem-solving scenarios using the strategies they have learnt.
- **Hints:** This feature supplies additional background information, reminders or links to concepts that have appeared elsewhere.

Mental maths



- 1 Note the difference of 5 between some of the numbers in the data.
 - a How many students prefer chocolate to marble?
 - b Use double facts to find the total number of students that like vanilla and red velvet.

Each chapter ends with a **Review** page, which comprises:

- **Key terms and concepts:** vocabulary questions that check students understand the main terms and concepts presented in the chapter.
- **Quick check:** short questions that revise the mathematics covered through the chapter.
- **Challenge and investigate:** long questions or activities that can extend beyond the main curriculum for students who need additional extra challenges.

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 for free access to the following:

- Additional content
- Answers
- Glossary
- Curriculum mapping

Section 4 **Statistics** Chapter 16 Tally charts and pictographs

Review: Tally charts and pictographs

Key terms and concepts

- 1 a Another word for information is _____.
 b The _____ of a tally chart tells us what it is about.
 c The _____ in a pictograph tells us how many each symbol is worth.
 d _____ lines help to separate the pictures in a pictograph.

Quick check

- 1 Fill in the number that each set of tally marks shows.
 a IIII _____ b IIII III _____

- 2 Complete the tally chart and answer the questions.
 a How many students prefer raisin? _____
 b Which chocolate do fewer than five students prefer? _____
 c Which chocolate do more than six students prefer? _____

Favourite types of chocolate

Chocolate	Tally	Number of students
mint		7
raisin	IIII	
caramel		6
milk	IIII	

- 3 Look at the pictograph and answer the following questions.

Favourite burgers

Lamb	☹️	☹️		
Chicken				
Veggie	☹️	☹️	☹️	

Key: ☹️ 2 children

- a What is the title of the pictograph? _____
- b List all the responses. _____
- c Eight students prefer chicken burgers. Fill in the pictograph.
- d How many students prefer vegetarian burgers?

Challenge and investigate

- 1 Make a set of challenge cards. Each challenge should involve completing tally charts and pictographs. Store them in the classroom, and play during lunchtime or any free time.
- 2 Make a class pictograph showing the birthday month of all the students and the teachers. Display the chart in the classroom. Under each symbol, write the name of the person celebrating and the date.

In this chapter, you will:

- count from 1 to 1000, forward and backward
- estimate how many objects are in a set using 20 as a guide, then count to check
- count objects in different arrangements to demonstrate conservation to 20
- skip count in 2s, 5s, 10s and 100s to 1000
- count objects to demonstrate one-to-one correspondence up to 100
- explore the value of coins and bills.

Starting point

- 1 Can you count all the items for sale at the seafood stall?
- 2 Listen, follow and count from 1 to 1000 with your teacher and classmates. Count **forward** and **backward**.

Key words

forward
backward

**Talking maths**

In groups, practise counting from 1 to 1000 forward and backward. Start with 1 to 100, then 101 to 200, then 201 to 300, until you reach 1000. Help one another so that you do not leave out any numbers.

Estimating to 20

Key maths idea



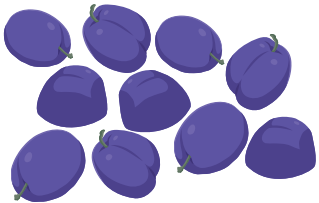
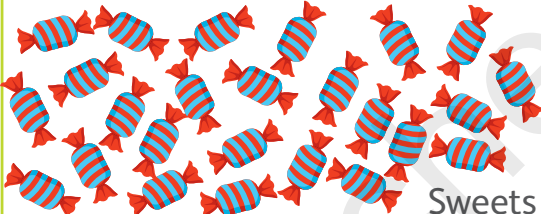
Key words

estimate
actual amount
close

Guess how many doughnuts there are on the tray. Do you think there are **more than 10** or **fewer than 10**? Count up to 10 doughnuts.

Was your **estimate** **more than 10** or **fewer than 10**? Count the number of doughnuts on the tray. By counting, we know there are 15 doughnuts on the tray. This is the **actual amount**.

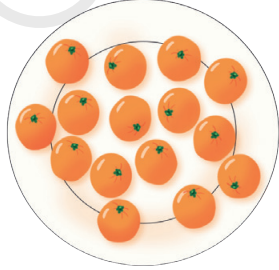
Look at the table. It shows estimates and whether the estimates are **more than 20** or **fewer than 20**. It also shows the **actual amount**.

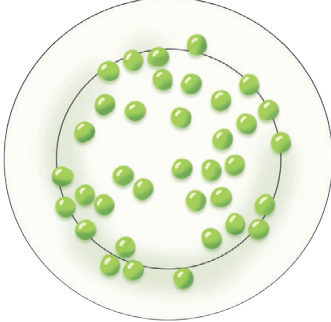
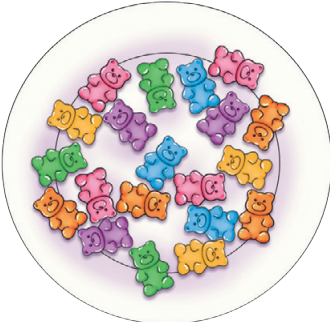
Objects	Estimate	More than 20 or fewer than 20	Actual amount
 Plums	8	fewer	10
 Sweets	21	more	25

To estimate is to give a number as **close** as possible to the exact number.



1 Estimate the objects in each row. Count to check whether your estimate was close. Complete the table.

Objects	Estimate	More than 20 or fewer than 20	Actual amount
<p>a</p>  Oranges			

Objects	Estimate	More than 20 or fewer than 20	Actual amount
<p>b</p>  <p>Peas</p>			
<p>c</p>  <p>Gummy bears</p>			

Counting to 100

Key maths idea



Count **forward** from 1 to 100. Count **backward** from 100 to 1.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

1 Count **forward** or **backward** to fill in the missing numbers.

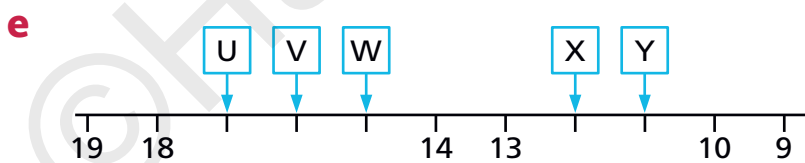
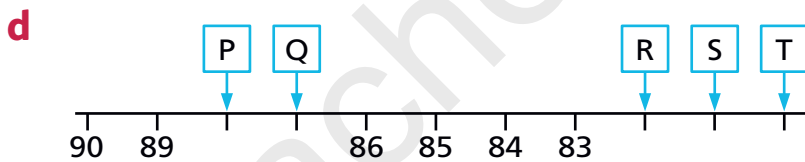
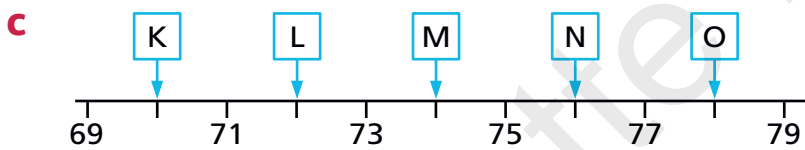
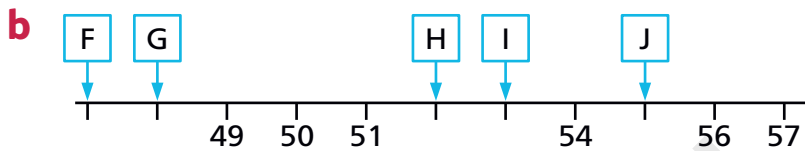
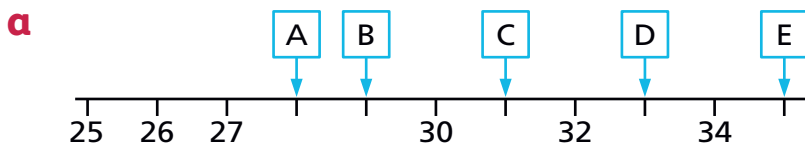
a 11, 12, ____, ____, 15

b 33, ____, 35, ____, 37

c 59, ____, 57, 56, ____

d 74, 73, ____, ____, 70

2 Count **forward** or **backward** to fill in the missing numbers on the number line.



Maths at home



Use 20-centimetre strips to make a folding number line from 0 to 100.

Counting to 1000



Key maths idea

Count **forward** using the hundred charts.

Count **backward** using the hundred charts.

Look at the digits that repeat in each row and in each column.

101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130
131	132	133	134	135	136	137	138	139	140
141	142	143	144	145	146	147	148	149	150
151	152	153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168	169	170
171	172	173	174	175	176	177	178	179	180
181	182	183	184	185	186	187	188	189	190
191	192	193	194	195	196	197	198	199	200

201	202	203	204	205	206	207	208	209	210
211	212	213	214	215	216	217	218	219	220
221	222	223	224	225	226	227	228	229	230
231	232	233	234	235	236	237	238	239	240
241	242	243	244	245	246	247	248	249	250
251	252	253	254	255	256	257	258	259	260
261	262	263	264	265	266	267	268	269	270
271	272	273	274	275	276	277	278	279	280
281	282	283	284	285	286	287	288	289	290
291	292	293	294	295	296	297	298	299	300



(continued)

301	302	303	304	305	306	307	308	309	310
311	312	313	314	315	316	317	318	319	320
321	322	323	324	325	326	327	328	329	330
331	332	333	334	335	336	337	338	339	340
341	342	343	344	345	346	347	348	349	350
351	352	353	354	355	356	357	358	359	360
361	362	363	364	365	366	367	368	369	370
371	372	373	374	375	376	377	378	379	380
381	382	383	384	385	386	387	388	389	390
391	392	393	394	395	396	397	398	399	400

401	402	403	404	405	406	407	408	409	410
411	412	413	414	415	416	417	418	419	420
421	422	423	424	425	426	427	428	429	430
431	432	433	434	435	436	437	438	439	440
441	442	443	444	445	446	447	448	449	450
451	452	453	454	455	456	457	458	459	460
461	462	463	464	465	466	467	468	469	470
471	472	473	474	475	476	477	478	479	480
481	482	483	484	485	486	487	488	489	490
491	492	493	494	495	496	497	498	499	500

501	502	503	504	505	506	507	508	509	510
511	512	513	514	515	516	517	518	519	520
521	522	523	524	525	526	527	528	529	530
531	532	533	534	535	536	537	538	539	540
541	542	543	544	545	546	547	548	549	550
551	552	553	554	555	556	557	558	559	560
561	562	563	564	565	566	567	568	569	570
571	572	573	574	575	576	577	578	579	580
581	582	583	584	585	586	587	588	589	590
591	592	593	594	595	596	597	598	599	600

**(continued)**

601	602	603	604	605	606	607	608	609	610
611	612	613	614	615	616	617	618	619	620
621	622	623	624	625	626	627	628	629	630
631	632	633	634	635	636	637	638	639	640
641	642	643	644	645	646	647	648	649	650
651	652	653	654	655	656	657	658	659	660
661	662	663	664	665	666	667	668	669	670
671	672	673	674	675	676	677	678	679	680
681	682	683	684	685	686	687	688	689	690
691	692	693	694	695	696	697	698	699	700

701	702	703	704	705	706	707	708	709	710
711	712	713	714	715	716	717	718	719	720
721	722	723	724	725	726	727	728	729	730
731	732	733	734	735	736	737	738	739	740
741	742	743	744	745	746	747	748	749	750
751	752	753	754	755	756	757	758	759	760
761	762	763	764	765	766	767	768	769	770
771	772	773	774	775	776	777	778	779	780
781	782	783	784	785	786	787	788	789	790
791	792	793	794	795	796	797	798	799	800

801	802	803	804	805	806	807	808	809	810
811	812	813	814	815	816	817	818	819	820
821	822	823	824	825	826	827	828	829	830
831	832	833	834	835	836	837	838	839	840
841	842	843	844	845	846	847	848	849	850
851	852	853	854	855	856	857	858	859	860
861	862	863	864	865	866	867	868	869	870
871	872	873	874	875	876	877	878	879	880
881	882	883	884	885	886	887	888	889	890
891	892	893	894	895	896	897	898	899	900

(continued)



901	902	903	904	905	906	907	908	909	910
911	912	913	914	915	916	917	918	919	920
921	922	923	924	925	926	927	928	929	930
931	932	933	934	935	936	937	938	939	940
941	942	943	944	945	946	947	948	949	950
951	952	953	954	955	956	957	958	959	960
961	962	963	964	965	966	967	968	969	970
971	972	973	974	975	976	977	978	979	980
981	982	983	984	985	986	987	988	989	990
991	992	993	994	995	996	997	998	999	1000

1 Count **forward** or **backward** to fill in the missing numbers.

a 221, 222, ____, ____, 225

b 543, ____, 545, ____, 547

c 179, ____, 177, 176, ____

Skip counting to 100

Key maths idea



Skip counting is counting by a number other than 1. We can skip count by twos (2s), fives (5s) and tens (10s), for example.

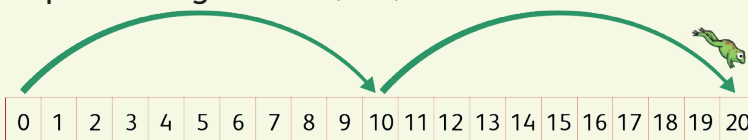
Skip counting in twos (2s):



Skip counting in fives (5s):



Skip counting in tens (10s):



Skip counting in 2s jumps over 1 number.

Skip counting in 5s jumps over 4 numbers.

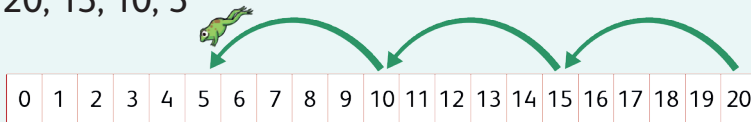
Skip counting in 10s jumps over 9 numbers.



Mental maths



- 1 Skip count **forward** in 2s from 10 to 20:
10, 12, 14, 16, 18, 20
- 2 Skip count **backward** in 5s from 20 to 5:
20, 15, 10, 5



The numbers end in 0, 2, 4, 6 or 8.



The numbers end in 0 or 5.

- 1 Look at this hundred chart.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

- a Skip count in 2s. Circle in **red** the numbers you say.
 - b Skip count in 5s. Box in **blue** the numbers you say.
 - c Skip count in 10s. Cross out (X) in **green** the numbers you say.
- 2 Fill in the missing numbers. Write whether they are counting in 2s, 5s or 10s.
 - a 2, 4, _____, _____, 10 Counting in _____
 - b 15, _____, 25, _____, 35 Counting in _____
 - c 90, 80, 70, _____, _____ Counting in _____
 - 3 Write the next three numbers. Use the hundred chart to help you.
 - a 23, 33, 43, _____, _____, _____
 - b 17, 15, 13, _____, _____, _____
 - c 42, 47, 52, _____, _____, _____
 - 4 Fill in the missing numbers.
 - a 20, 30, _____, _____, 60, _____, 80
 - b 45, 50, 55, 60, _____, _____, _____
 - c _____, 34, 36, _____, 40, 42
 - d 16, 14, _____, _____, 8, _____

Skip counting to 1000

Key maths idea



Skip counting is counting by a number other than 1. We can skip count by twos (2s), three (3s), fives (5s), tens (10s) and hundreds (100s), for example.

Look at the number charts earlier in this chapter.

Point to the numbers and skip count orally from 0 in:

- 2s to 20
- 3s to 30
- 5s to 50
- 10s to 100
- 100s to 1000.

- 1 Skip count in 2s, 5s, 10s and 100s using the number charts.
- 2 Count as a whole class and in groups.

One-to-one correspondence

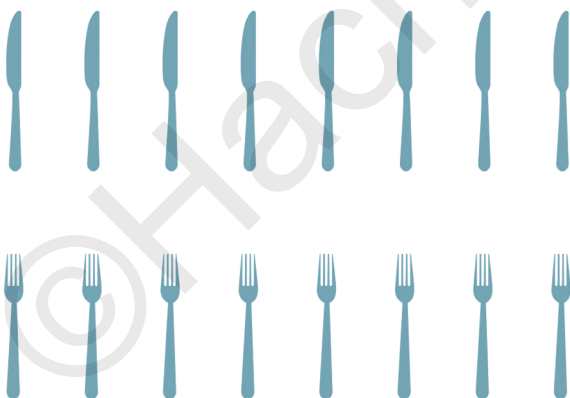
Key maths idea



Count the objects in the set one by one only once.

When counting objects, you count the first object and say '1', then the second object and say '2', until you complete the set. If a set has 99, you will say '99' when you count the last object.

Count how many desks there are in your classroom. Count how many chairs there are in your classroom. Does the number of desks match the number of chairs?



Are there enough forks for the knives?
Yes.

There are 8 knives and 8 forks.



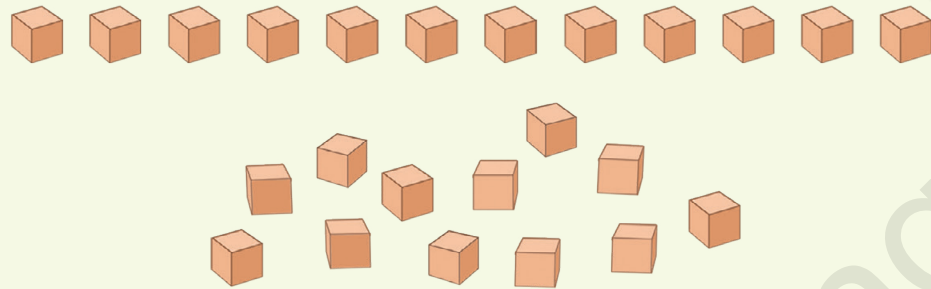
Are there enough ice creams for each child? Yes.

There are 5 children and 5 ice creams.

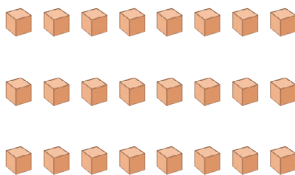
Conservation 1

Key maths idea

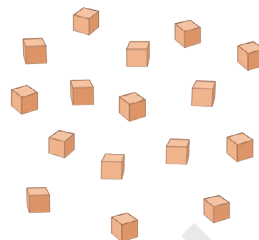
The amount in a set remains the same whether the objects in the set are close together or spread out.



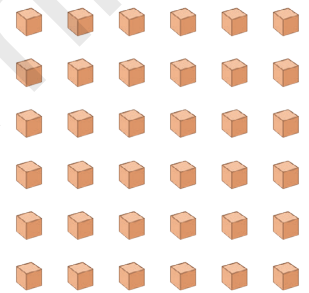
1 Count the blocks in the sets and match those with the same number.



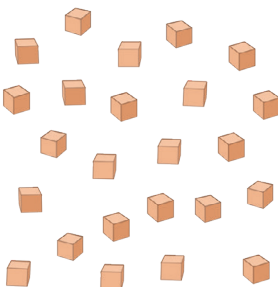
Set A



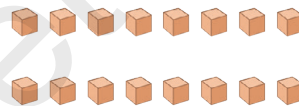
Set B



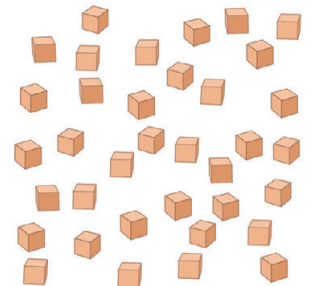
Set C



Set D



Set E

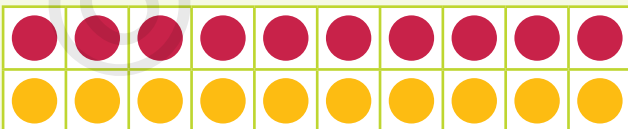


Set F

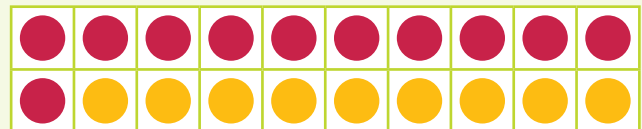
Conservation 2

Key maths idea

The arrangement of numbers does not change the total.



$10 + 10 = 20$



$11 + 9 = 20$

1 Use double-sided counters and ten frames to show different arrangements for the conservation of 20. Write how you made 20 in three different ways.

- a** and = 20 **b** and = 20 **c** and = 20

Bills and coins

Key maths idea



Look at each **bill** and **coin** and discuss their features.



Key words
bill
coin
dollar
cent



The value of this bill is ten **dollars** (\$10).



The value of this coin is twenty-five **cents** (25¢).

Count on, starting with the largest amount, to get the total value.



10¢



15¢



20¢



21¢

= 21 cents



\$10



\$20



\$25



\$30

= 30 dollars



The symbol for dollars is **\$**. The dollar sign comes **before** the number.
The symbol for cents is **¢**. The cent sign comes **after** the number.

1 Count on, starting with the largest amount, to get the total value.

a



?

?

?

?

=

?

cents

b



?

?

?

?

?

=

?

cents

c     = ? dollars

(?) (?) (?) (?)

d     = ? dollars

(?) (?) (?) (?)

2 Draw coins to show the values.

- a** 15 cents **b** 30 cents

3 Draw bills to show the values.

- a** 15 dollars **b** 40 dollars

Skip counting again

Problem solving

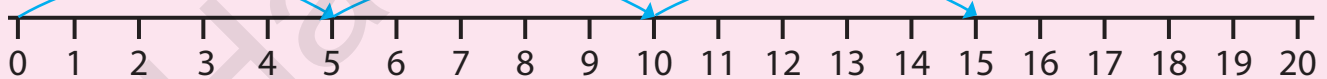
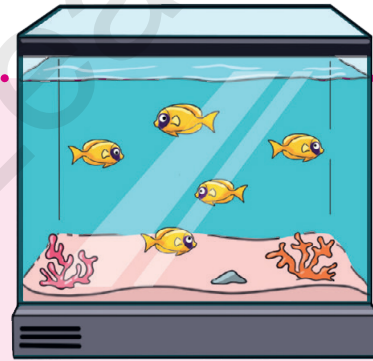


Draw a picture **Look for a pattern**

There are 3 fish tanks in the pet store.
They each contain 5 fish. How many
fish are there?

Steps:

- 1 Read:** There are 3 tanks of fish. You want to find the total number of fish.
- 2 Plan:** Draw the information. Look for a pattern.
- 3 Solve:** Skip count in 5s using the pattern.
- 4 Check:** Use the number line to check your answer.



There are 15 fish.

- 1** Granny baked cookies for Ria, Jim, Ariel and Jason.
Each child got 2 cookies. How many cookies
did Granny bake?



- 2** There are 3 groups in class. Each group gets 5 crayons. How many crayons does the teacher have to buy?

- 3** Farmer Clarke's chickens lay 10 eggs on Monday, 10 eggs on Tuesday and 10 eggs on Wednesday. How many eggs does Farmer Clarke collect in all after Wednesday?

Review: Number concepts 1

Key terms and concepts

- 1 Fill in the blanks.
 - a Conservation shows that the amount in a set is the ____ whether the objects in the set are close together or spread out.
 - b ____ counting is counting by a number other than 1.
 - c We can count forward and _____.
 - d If I start with the larger number, I will be counting _____.

Quick check

- 1 Fill in the missing numbers.
 - a 21, 22, 23, 24, ____, ____, ____, 28, ____, ____
 - b 44, 46, ____, ____, ____, 54, ____, ____, 60
 - c 85, 80, 75, ____, ____, ____, ____, ____, 45, 40
 - d 95, 94, ____, ____, ____, ____, ____, ____, ____, ____
- 2 Fill in the blanks.
 - a 62, 64, 66, 68, 70 is counting in ____.
 - b 40, 35, 30, 25, 20, is counting in ____.
- 3 Write the numbers you would say if you were counting backward in 5s from 50 to 20.
- 4 You say '13, 23, 33, 43, 53'. Are you counting **forward** or **backward**?
- 5 The Thomas family is having a tea party. They invite 24 guests. How many matching **teacups** and **saucers** must they have?
- 6 Draw bills to show \$25.
- 7 Complete the number sentences to show conservation.
____ + ____ = 15 ____ + ____ = 15



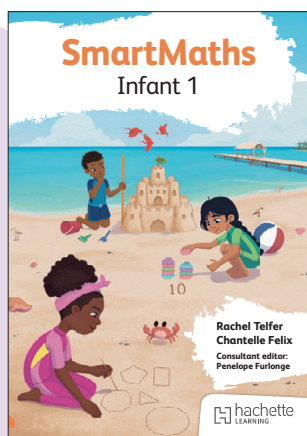
Challenge and investigate

- 1 A frog starts on the number 67.
He jumps in 5s.
He jumps forward 3 times.
What number does he land on?

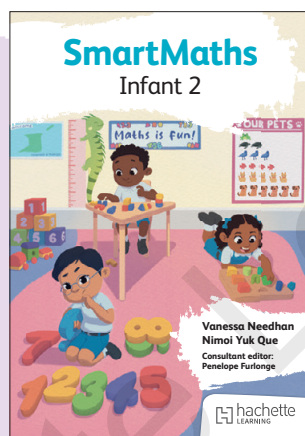


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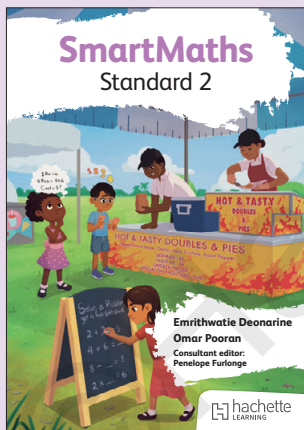
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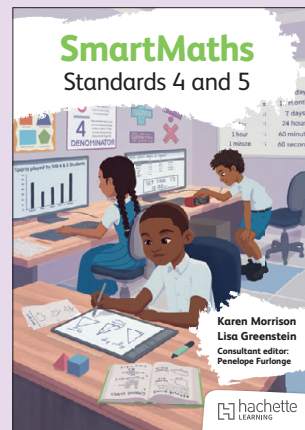
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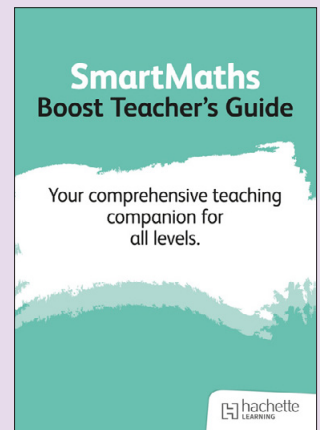
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we unlock
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SmartMaths Standard 1

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- The answers, glossary and curriculum mapping can be found online at www.hachettelearning.com/mathematics/smartmaths-standards-1.

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