



NZQA Assessment Support Material

Unit standard	29030				
Title	Produce business information using data processing tools				
Level	4	Credits	20	Version	1

Note

The following guidelines are supplied to enable assessors to carry out valid and consistent assessment using this internal assessment resource.

Assessors must manage authenticity for any assessment from a public source, because students may have access to the assessment schedule or student exemplar material. Use of this assessment resource without modification may mean that students' work is not authentic. The assessor will need to change figures, measurements or data sources or set a different context or topic.

While this resource exemplifies written assessments, there are other assessment activities and approaches that could be taken.

1. See Generic Resources and Guidelines at <https://www.nzqa.govt.nz/providers-partners/assessment-and-moderation-of-standards/assessment-of-standards/generic-resources/>

Assessor guidelines

For authenticity purposes, not all sample answers have been provided. These will need to be provided by the Assessment developer.

Context/setting

This assessment activity contains **seven (7)** assessment tasks in which learners need to demonstrate their ability to produce business information using data processing tools.

This assessment is in the context of a fictional business entity called Zirconi Bags and are available from the Business Administration and Technology assessment support material page. The evidence that learners provide for the assessment must meet the requirements of this entity.

AWARD OF CREDIT



To be awarded credit for this unit standard learners must demonstrate their ability to produce business information using data processing tools.

CONDITIONS OF ASSESSMENT



This is an **open book assessment** that will take place over a timeframe set by you. Learners' answers must be in their own words.



You will provide learners with information regarding timeframes for this assessment.

Assessment activity

The assessment contains the following tasks:

1. Produce sales information for Management Team meeting.
2. Identify the trend in usage of the 'zirconi.co.nz' website.
3. Produce data for various suitcase sizes.
4. Find a solution for data entry errors.
5. Identify a discounted price for a sales promotion.
6. Calculate depreciation on new purchase.
7. Process quotes for the reception area upgrade.

Resource requirements

- The following documents were created for the fictional entity Zirconi Bags. You must supply these documents to the learner:
 - Company_style_guide.docx
 - Database_CustomerClubMembers_Oct2016.xlsx
 - MTD_analysisCY2016_suitcase_size.xlsx
 - Organisational_chart.xlsx
 - Store_locations.docx
 - Unique_visitors_zirconi_website.xlsx
 - WeeklyShopTake_WE23102016.xlsx
 - Zirconi_Bags_background_information.docx
- Learners will need access to a computer with Internet access, and a printer.

Assessment Schedule

Unit standard		29030			
Title	Produce business information using data processing tools				
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Outcome 1

Produce business information using data processing tools

ER	Task	Evidence	Judgement
ER 1.1 Data is processed using software applications to produce business information that is accurate and fit for purpose Range Processes include: analysis, integration, linking, manipulation, validation. Evidence of four is required.			Overarching judgement statements for ER 1.1: Language used in headings and column titles must be appropriate and spelling, grammar and punctuation must be accurate. Document layout must be clear.
	Analysis Task 1 Question 3	New Zealand Sales worksheet showing the average sales for New Zealand stores for this week. Australia Sales worksheet showing the average sales for Australian stores for this week.	Evidence must show used AVERAGE function to calculate average sales figure for both Australia and New Zealand. Average calculated correctly. The average figure must be labelled so that it clearly represents average weekly sales.
	Analysis Task 1 Question 5	Worksheet showing how used VLOOKUP function to find sales figures for Dunedin store over this week.	Figure found using VLOOKUP function must be correct.

			Additional column must be clearly labelled to identify that figure represents the Dunedin store's sales for the week.
Analysis Task 1 Question 6	Worksheet showing how learner used HLOOKUP function to find sales figure for the Sydney store on Thursday 20 October 2016.		Figure found using HLOOKUP function must be correct. Additional column must be clearly labelled to identify that figure represents the Sydney store's sales for on 'Thursday 20/10/16'.
Analysis Task 1 Question 4	Column in AU and NZ worksheets showing whether each store is a 'High' or 'Low' seller for this week. (ER)		'If()' formula must be correct. Additional Column clearly labelled to identify what 'High' and 'Low' represent.
Analysis Task 3	Summary Worksheet showing sum of units sold column on small, medium and large worksheets.		Sum total correct on all 3 sheets. Sums correctly linked from worksheets for three different sizes. Summary sheet clearly identifies the total units sold for each size category for September 2016.
Analysis Task 5	Worksheet showing 30% discount for all suitcases. Worksheet showing how learner used VLOOKUP function to find discounted price for Integra Colombo 55cm Sp Case in Black (Product Code 3146635) Email to Scott Ford, giving discounted price for the Integra Colombo 55cm Sp Case in Black.		Discounted price for Integra Colombo 55cm Sp Case in Black correct. Discounted price for the bag is found using VLOOKUP. Email clearly identifies the product and its correct discounted price.
			Sufficiency for analysis: Two of Task 1 Q5, Task 1 Q6 and Task 5 correct AND Two of Task 1 Q3, Task 1 Q4 and Task 3 correct.
Linking Task 1 Question 2	New worksheet with table showing the budget and actual sales for 2015 and 2016 for this week for Australia and New Zealand.		Linking formula needs to be correct.

			Table on new worksheet needs to clearly identify the budget and actual weekly sales for Australia and New Zealand for 2015 and 2016.
Linking Task 3 Question 3	New worksheet with table showing total units sold for small, medium and large suitcases.		Linking formula needs to be correct. Table needs to clearly identify the suitcase size and the corresponding units sold.
			Sufficiency for linking: Task 1 Q2 and Task 3 Q3 are required to be correct.
Manipulation Task 2	‘Unique visitors to zironi.co.nz’ data Bar graph showing number of visitors against month and year. Trend line showing on bar graph for the period of the graph.		Trend line must be consistent with the bar graph data. Heading needs to clearly show that the information represents the unique visitors to zirconi.co.nz. Graph has heading and labels on axis. Labels at regular intervals on time axis.
Manipulation Task 3 Question 1	‘MTD analysis CY 2016 suitcase size’ data Worksheet showing type of suitcase (hard or soft) and size of suitcase in separate columns.		Columns correctly separated. Headings on columns accurately describe content.
			Sufficiency for manipulation: Task 2 and Task 3 Q1 required to be correct.
Validation Task 4 Question 1	‘MTD analysis CY 2016 suitcase size’ data Worksheet with validation criteria created, including settings, input message and error alert.		Data validation is set up so that only a number is between 1000000 and 9999999 can be entered. Error alert wording correctly identifies the error and is appropriate for a business setting.
Validation Task 4 Question 2a	‘Database CustomerClubMembers Oct2016’ data Database with validation criteria created so only dates in 2016 can be entered as Join dates.		Validation must be carried out in a database. Validation restricts Join dates to 2016. Error alert wording correctly identifies the error and is appropriate for a business setting.

	Validation Task 4 Question 2b	'Database CustomerClubMembers Oct2016' data Database with validation criteria created so only dates between 1910 and 2000 can be entered as Date of Birth.	Validation must be carried out in a database. Validation restricts Date of Birth entries to between 1910 and 2000. Error alert wording correctly identifies the error and is appropriate for a business setting. Sufficiency for validation: Task 4 Q1 AND one of Task 4 Q2a and Task 4 Q2b correct. Sufficiency requirement for ER 1.1: Two software applications (Excel and a database application) must be used across the four processes; analysis, linking, manipulation and validation.
ER 1.2 Financial calculations are performed to produce business information. Range Calculations that include the use of five different functions.	ABS Task 1 Question 1	'Weekly Shop Take WE09102016' data Column created on this worksheet for percentage (%) variance between Budget and Actual Sales.	ABS function correctly applied to calculate percentage variance between Budget and Actual Sales. Variance % calculated must be correct. Column must be labelled correctly to identify that it represents variance between Budget and Actual Sales.
	ABS Task 1 Question 2	Column created on this worksheet for percentage (%) variance between 2015 sales and 2016 sales.	ABS function correctly applied to calculate percentage variance between 2015 and 2016 sales. Variance % calculated must be correct. Column must be labelled correctly to identify that it represents variance between 2015 Sales and 2016 Sales.
	AVERAGE Task 1 Question 3	New Zealand Sales worksheet showing the average sales for New Zealand stores for the week ending 23/10/2016.	AVERAGE function correctly applied to calculate average sales figure for both Australia and New Zealand. The average figure must be labelled so that it clearly represents average weekly sales.

		Australian Sales worksheet showing the average sales for Australian stores for the week ending 23/10/2016.	
SUM Task 3 Question 2		Worksheet showing sum of units sold column on small, medium and large worksheets.	SUM function correctly applied to add total units sold to the worksheet for each of the three sizes.
SLN (Straight line depreciation) Task 6		Worksheet showing <ul style="list-style-type: none"> calculations to find the salvage value of the dishwasher calculation of the annual depreciation to be claimed for the dishwasher. 	SLN function correctly applied to calculate annual depreciation for the dishwasher. Worksheet should clearly label original cost, depreciation rate, salvage value and annual depreciation amount.
MIN Task 7		Worksheet showing <ul style="list-style-type: none"> quoted price including GST and excluding GST for building work and painting work Lowest quote price (excluding GST) for building work and painting work Lowest total quoted price (excluding GST) for project. 	MIN function correctly applied to find lowest quoted price for building work and painting work. GST calculated is correct. Quotes for each trade are shown in order from least to most expensive. Worksheet is set out to clearly, with labels and headings that show the quotes for each trade and the company.
SUM Task 7		Worksheet showing <ul style="list-style-type: none"> quoted price including GST and excluding GST for building work and painting work lowest quote price (excluding GST) for building work and painting work lowest total quoted price (excluding GST) for project. 	SUM function correctly applied to find lowest total quoted price for project. GST calculated is correct. Lowest total quote price is calculated correctly. Worksheet is set out to clearly, with labels and headings that show the quotes for each trade and the company.
			Sufficiency for ER 1.2: All questions are required correct.

ER 1.3 Problem-solving and decision-making techniques are applied to meet stakeholder needs and the requirements of the entity	Task 1 Question 4	Column in AU and NZ worksheets showing whether each store is a 'High' or 'Low' seller for this week. Waverley store identified as 'High' seller for week ending 23/10/2016. Tauranga store identified as 'Low' seller for week ending 23/10/2016.	Learner selected 'If()' function to find Low and High Sellers. If() formula created enabled 'High' and 'Low' sellers to be identified in AU and NZ. Tauranga and Waverley correctly identified as 'High' or 'Low' sellers.
	Task 4 Question 1	Worksheet with validation criteria created, including settings, input message and error alert.	Data validation is set up so that only a number is between 1000000 and 9999999 can be entered. Input message is correct. Error alert wording correctly identifies the error and is appropriate for a business setting.
	Task 4 Question 2	Database with validation criteria created.	Data validation is correctly set up so that <ul style="list-style-type: none"> only dates in 2016 can be entered as Join Dates only dates between 1910 and 2000 can be entered as Date of Birth. Error alert wording correctly identifies the error and is appropriate for a business setting.
	Task 5	Worksheet showing 30% discount for all suitcases. Worksheet showing how learner used VLOOKUP function to find discounted price for Integra Colombo 55cm Sp Case in Black (Product Code 3146635). Email to Scott Ford, giving discounted price for the Integra Colombo 55cm Sp Case in Black.	Formula for calculating discount must be correct and applied correctly to whole column. Email wording identifies the product and gives correct discounted price from VLOOKUP function in Excel.
	Task 6	Worksheet showing: <ul style="list-style-type: none"> calculations to find the salvage value of the dishwasher 	Calculations selected enabled annual depreciation to be found. Depreciation calculations used the Straight-Line method.

		<ul style="list-style-type: none"> • calculation of the annual depreciation to be claimed for the dishwasher. 	Correct annual depreciation to be claimed is stated.
	Task 7	<p>Worksheet showing:</p> <ul style="list-style-type: none"> • quoted price including GST and excluding GST for building work and painting work • lowest quote price (excluding GST) for building work and painting work • lowest total quoted price (excluding GST) for project. 	<p>Functions selected enabled lowest total quoted price to be found for building and painting work.</p> <p>The content of worksheet would give the Operations Manager information to decide on the contractors to be used.</p> <p>Sufficiency for ER1.3:</p> <p>4 of Task 1 Q4, Task 4 Q1, Task 4 Q2, Task 5, Task 6 and Task 7 required to be correct.</p>

Final grades will be decided using professional judgement based on a holistic examination of the evidence provided against the criteria in the unit standard.

Exemplars

Task One: Sales information for Management Team meeting

1. Produce information on how the week's sales data compares with the previous year and the week's sales budget.
 - a. Show the percentage variance between Budgeted Sales and Actual Sales for the Australian and New Zealand stores. Use the ABS function in the formula you use for the calculation.

New Zealand stores

Formula used to perform this process: $=\frac{(I2-J2)}{ABS(J2)}$

i 021/10/16	Sat 22/10/16	Sun 23/10/16	Mon 17/10/16 to Sun 23/10/16 (\$NZ)	Budgeted Sales (\$NZ)	% Variance (NZ Budgeted vs Actual Sales)
1,306	2,801	1,660	14,451	12,000	20%
1,543	978	1,968	9,668	9,000	7%
2,418	1,894	411	9,823	9,000	9%
1,900	3,114	1,244	15,560	17,000	-8%
1,245	1,726	406	10,243	9,000	14%
1,229	751	150	5,416	7,000	-23%
1,320	614	906	8,574	8,000	7%
1,246	1,128	360	8,543	7,000	22%
168	251	716	2,521	4,000	-37%
2,515	1,811	1,684	11,542	11,000	5%
2,084	1,788	438	11,297	12,000	-6%
978	1,996	1,219	7,019	7,000	0%
1,381	1,688	485	8,765	8,000	10%
1,444	1,426	1,195	11,017	12,000	-8%
899	595	494	7,618	6,000	27%
21,676	22,561	13,336	142,057	138,000	3%

Australian stores

Formula used to perform this process: $=\frac{(I2-J2)}{ABS(J2)}$

Fri 21/10/16	Sat 22/10/16	Sun 23/10/16	Mon 17/10/16 to Sun 23/10/16 (\$AU)	Budgeted Sales (\$AU)	% Variance (AU Budgeted vs Actual Sales)
1,953	3,949	2,848	18,882	17,000	11%
2,107	2,079	1,359	11,459	12,000	-5%
2,554	942	501	8,985	7,000	28%
1,802	1,749	1,709	13,421	14,000	-4%
4,697	3,716	2,382	21,483	22,000	-2%
3,431	3,915	1,846	18,143	17,000	7%
2,901	2,435	2,345	14,844	16,000	-7%
2,802	2,893	3,517	23,599	25,000	-6%
1,931	3,769	2,503	19,028	19,000	0%
5,027	3,290	1,582	19,782	19,000	4%
4,604	2,752	2,479	21,269	22,000	-3%
3,124	4,552	2,286	20,441	23,000	-11%
2,405	5,125	2,519	19,789	18,000	10%
9,471	3,957	2,009	25,373	23,000	10%
11,523	4,605	3,628	41,393	40,000	3%
60,332	49,728	33,513	297,891	294,000	1%

- b. Show the percentage variance between 2015 sales and 2016 sales for the Australian and New Zealand stores.

New Zealand stores

Formula used to perform this process: $= (I2-L2)/ABS(L2)$

Sun 23/10/16	Mon 17/10/16 to Sun 23/10/16 (\$NZ)	Budgeted Sales (\$NZ)	% Variance (NZ Budgeted vs Actual Sales)	Mon 19/10/15 to Sun 25/10/16 (\$NZ)	% Variance (NZ 2015 vs 2016 sales)
1,660	14,451	12,000	20%	8,578	68%
1,968	9,668	9,000	7%	6,394	51%
411	9,823	9,000	9%	6,814	44%
1,244	15,560	17,000	-8%	9,794	59%
406	10,243	9,000	14%	9,550	7%
150	5,416	7,000	-23%	4,156	30%
906	8,574	8,000	7%	6,924	24%
360	8,543	7,000	22%	6,412	33%
716	2,521	4,000	-37%	3,781	-33%
1,684	11,542	11,000	5%	9,102	27%
438	11,297	12,000	-6%	10,268	10%
1,219	7,019	7,000	0%	5,795	21%
485	8,765	8,000	10%	6,902	27%
1,195	11,017	12,000	-8%	8,558	29%
494	7,618	6,000	27%	5,892	29%
13,336	142,057	138,000	3%	108,920	30%

Australian stores

Formula used to perform this process: $= (I2-L2)/ABS(L2)$

Sun 23/10/16	Mon 17/10/16 to Sun 23/10/16 (\$AU)	Budgeted Sales (\$AU)	% Variance (AU Budgeted vs Actual Sales)	Mon 19/10/15 to Sun 25/10/15 (\$AU)	% Variance (AU 2015 vs 2016 sales)
2,848	18,882	17,000	11%	14,860	27%
1,359	11,459	12,000	-5%	11,015	4%
501	8,985	7,000	28%	8,335	8%
1,709	13,421	14,000	-4%	23,468	-43%
2,382	21,483	22,000	-2%	29,605	-27%
1,846	18,143	17,000	7%	19,925	-9%
2,345	14,844	16,000	-7%	17,013	-13%
3,517	23,599	25,000	-6%	29,775	-21%
2,503	19,028	19,000	0%	18,150	5%
1,582	19,782	19,000	4%	11,628	70%
2,479	21,269	22,000	-3%	20,835	2%
2,286	20,441	23,000	-11%	22,150	-8%
2,519	19,789	18,000	10%	18,256	8%
2,009	25,373	23,000	10%	18,017	41%
3,628	41,393	40,000	3%	29,623	40%
33,513	297,891	294,000	1%	292,655	2%

2. Produce a comparison of the week's sales in the Australian and New Zealand stores.
 - a. Create a new worksheet that displays the budget and actual sales totals from the separate Australian and New Zealand worksheets for 2016 (use the linking feature).

	A	B	C	D	E
1	Summary of budget and actual sales for Australia and New Zealand Week Ending 23102016				
2					
3		Week ending 23102016			
4					
5		New Zealand (\$NZ)		Australia (\$AU)	
6					
7	Sales Budget	138,000		295,000	
8					
9	Actual Sales	108,920		262,880	
10					

3. Produce a comparison of the average weekly sales in the Australian and New Zealand stores.
 - a. Calculate the average sales for the week in Australia and the average sales for the week in New Zealand using the appropriate function in Excel. Show this data on each worksheet.

New Zealand stores

Formula used to perform this process: `=AVERAGE(B2:H2)`

Sat 22/10/16	Sun 23/10/16	Mon 17/10/16 to Sun 23/10/16 (\$NZ)	Average daily sales for WE 23/10/16	Budgeted Sales (\$NZ)
2,801	1,660	14,451	2,064	12,000
978	1,968	9,668	1,381	9,000
1,894	411	9,823	1,403	9,000
3,114	1,244	15,560	2,223	17,000
1,726	406	10,243	1,463	9,000
751	150	5,416	774	7,000
614	906	8,574	1,225	8,000
1,128	360	8,543	1,220	7,000
251	716	2,521	360	4,000
1,811	1,684	11,542	1,649	11,000
1,788	438	11,297	1,614	12,000
1,996	1,219	7,019	1,003	7,000
1,688	485	8,765	1,252	8,000
1,426	1,195	11,017	1,574	12,000
595	494	7,618	1,088	6,000
22,561	13,336	142,057	20,859	138,000

Australian stores

Formula used to perform this process: `=AVERAGE(B2:H2)`

Sat 22/10/16	Sun 23/10/16	Mon 17/10/16 to Sun 23/10/16 (\$AU)	Average daily sales for WE 23/10/16 (AU)	Budgeted Sales (\$AU)
3,949	2,848	18,882	4,721	10,000
2,079	1,359	11,459	2,865	8,000
942	501	7,762	2,218	6,000
1,749	1,709	13,421	3,355	7,000
3,716	2,382	21,483	5,371	10,000
3,915	1,846	18,143	4,536	12,000
2,435	2,345	14,844	3,711	8,000
2,893	3,517	23,599	5,900	10,000
3,769	2,503	19,028	4,757	12,000
3,290	1,582	19,782	4,946	10,000
2,752	2,479	21,269	5,317	10,000
4,552	2,286	20,441	5,110	12,000
5,125	2,519	19,789	4,947	10,000
3,957	2,009	25,373	6,343	12,000
4,605	3,628	41,393	10,348	12,000
49,728	33,513	296,668	74,167	1,000,000

4. Produce data showing stores categorised as 'High' sellers or 'Low' sellers. This data will be used to compare the stores in terms how the value of their sales.

For the Australian stores, sales greater or equal to \$19,000 are categorised as 'High'.

For the New Zealand stores, sales greater or equal to \$7,000 are categorised as 'High'.

Otherwise, sales are categorised as 'Low'.

- Use an appropriate Excel function to categorise the Australian stores as 'High' sellers or 'Low' sellers.
- Is the Waverly store in Australia is a 'High' or 'Low' seller this week? **High**

L2 : X ✓ fx =IF(K2<19000;"Low";"High")

	A	B	C	D	E	F	G	H	I	J	K	L
	Trading Store	Mon 17/10/16	Tues 18/10/16	Wed 19/10/16	Thu 20/10/16	Fri 21/10/16	Sat 22/10/16	Sun 23/10/16	Mon 17/10/16 to Sun 23/10/16 (SAU)	Budgeted Sales (SAU)	Mon 19/10/15 to Sun 25/10/15 (SAU)	High / Low Sellers
1												
2	Burwood	3,152	762	2,714	3,504	1,953	3,949	2,848	18,882	18,000	14,860	Low
3	Richmond	1,735	422	2,483	1,274	2,107	2,079	1,359	11,459	12,000	11,015	Low
4	Brisbane	326	2,245		1,194	2,554	942	501	7,762	7,000	8,335	Low
5	Waverley	1,235	2,543	1,242	3,141	1,802	1,749	1,709	13,421	14,000	23,468	High
6	Castle Towers	2,127	3,245	3,099	2,217	4,697	3,716	2,382	21,483	22,000	29,605	High
7	Charlestown	2,072	1,318	1,218	4,343	3,431	3,915	1,846	18,143	17,000	19,925	High
8	Chermside	923	1,758	2,034	2,448	2,901	2,435	2,345	14,844	16,000	17,013	Low
9	Doncaster	4,551	4,393	2,485	2,958	2,802	2,893	3,517	23,599	25,000	29,775	High
10	Sunnybank	1,951	1,428	2,152	5,294	1,931	3,769	2,503	19,028	19,000	18,150	Low
11	Highpoint	2,170	1,682	2,184	3,847	5,027	3,290	1,582	19,782	19,000	11,628	Low
12	Rockdale	1,604	2,569	2,331	4,930	4,604	2,752	2,479	21,269	22,000	20,835	High
13	Melbourne	1,737	2,409	2,508	3,825	3,124	4,552	2,286	20,441	23,000	22,150	High
14	Parramatta	1,097	1,190	2,312	5,141	2,405	5,125	2,519	19,789	18,000	18,256	Low
15	Perth	1,397	2,620	2,951	2,968	9,471	3,957	2,009	25,373	23,000	18,017	Low
16	Sydney	2,321	3,728	8,132	7,456	11,523	4,605	3,628	41,393	40,000	29,623	High
17	All	28,398	32,312	37,845	54,540	60,332	49,728	33,513	296,668	295,000	262,880	

- Use an appropriate Excel function to categorise the New Zealand stores as 'High' sellers or 'Low' sellers.
- Is the Tauranga store a 'Low' or 'High' seller this week? **Low**

L2 : X ✓ fx =IF(K2<7000;"Low";"High")

	A	B	C	D	E	F	G	H	I	J	K	L
	Trading Store	Mon 17/10/16	Tues 18/10/16	Wed 019/10/16	Thu 20/10/16	Fri 021/10/16	Sat22/10/16	Sun 23/10/16	Mon 17/10/16 to Sun 23/10/16 (SNZ)	Budgeted Sales (SNZ)	Mon 19/10/15 to Sun 25/10/16 (SNZ)	High / Low Sellers
1												
2	Albany	1,656	2,681	2,834	1,513	1,306	2,801	1,660	14,451	12,000	8,578	High
3	Botany	250	1,700	1,381	1,848	1,543	978	1,968	9,668	9,000	6,394	Low
4	Dunedin	1,121	2,235	1,223	521	2,418	1,894	411	9,823	9,000	6,814	Low
5	Lambton Quay	1,806	2,173	2,765	2,558	1,900	3,114	1,244	15,560	17,000	9,794	High
6	Merivale	1,613	1,948	2,034	1,271	1,245	1,726	406	10,243	9,000	9,550	High
7	Napier	438	659	640	1,549	1,229	751	150	5,416	7,000	4,156	Low
8	Newmarket	1,209	1,165	1,879	1,481	1,320	614	906	8,574	8,000	6,924	Low
9	New Plymouth	863	2,486	1,181	1,279	1,246	1,128	360	8,543	7,000	6,412	Low
10	Onehunga	186	506	184	510	168	251	716	2,521	4,000	3,781	Low
11	Queensgate	1,485	1,543	1,036	1,468	2,515	1,811	1,684	11,542	11,000	9,102	High
12	Riccarton	1,675	2,001	2,008	1,303	2,084	1,788	438	11,297	12,000	10,268	High
13	St Lukes	285	599	649	1,293	978	1,996	1,219	7,019	7,000	5,795	Low
14	Tauranga	1,276	1,989	740	1,206	1,381	1,688	485	8,765	8,000	6,902	Low
15	Hamilton	1,048	2,344	1,400	2,160	1,444	1,426	1,195	11,017	12,000	8,558	High
16	Manukau	903	1,119	1,420	2,188	899	595	494	7,618	6,000	5,892	Low
17	All	19,768	25,148	21,374	22,148	21,676	22,561	13,336	142,057	138,000	108,920	

5. Identify information on sales in the Dunedin store. The lease for that store is coming up for renewal.
 - a. Create two additional columns: one for the 2015 Dunedin sales and one for the 2016 Dunedin sales.
 - b. Use the VLOOKUP formula to insert the Dunedin sales totals in the new columns.

fx =VLOOKUP("Dunedin";A2:K16;11)

	D	E	F	G	H	I	J	K	L
/16	Wed 019/10/16	Thu 20/10/16	Fri 021/10/16	Sat22/10/16	Sun 23/10/16	Mon 17/10/16 to Sun 23/10/16 (\$NZ)	Budgeted Sales (\$NZ)	Mon 19/10/15 to Sun 25/10/16 (\$NZ)	Dunedin 2015
,681	2,834	1,513	1,306	2,801	1,660	14,451	12,000	8,578	6814
,700	1,381	1,848	1,543	978	1,968	9,668	9,000	6,394	
,235	1223	521	2,418	1,894	411	9,823	9,000	6,814	
,173	2,765	2,558	1,900	3,114	1,244	15,560	17,000	9,794	
,948	2,034	1,271	1,245	1,726	406	10,243	9,000	9,550	
659	640	1,549	1,229	751	150	5,416	7,000	4,156	
,165	1,879	1,481	1,320	614	906	8,574	8,000	6,924	
,486	1,181	1,279	1,246	1,128	360	8,543	7,000	6,412	
506	184	510	168	251	716	2,521	4,000	3,781	
,543	1,036	1,468	2,515	1,811	1,684	11,542	11,000	9,102	
,001	2,008	1,303	2,084	1,788	438	11,297	12,000	10,268	
599	649	1,293	978	1,996	1,219	7,019	7,000	5,795	
,989	740	1,206	1,381	1,688	485	8,765	8,000	6,902	
,344	1,400	2,160	1,444	1,426	1,195	11,017	12,000	8,558	
,119	1,420	2,188	899	595	494	7,618	6,000	5,892	
,148	21,374	22,148	21,676	22,561	13,336	142,057	138,000	108,920	

=VLOOKUP("Dunedin";A2:K16;9)

	D	E	F	G	H	I	J	K	L	M
Ved 019/10/16	Thu 20/10/16	Fri 021/10/16	Sat22/10/16	Sun 23/10/16	Mon 17/10/16 to Sun 23/10/16 (\$NZ)	Budgeted Sales (\$NZ)	Mon 19/10/15 to Sun 25/10/16 (\$NZ)	Dunedin 2015	Dunedin 2016	
	2,834	1,513	1,306	2,801	1,660	14,451	12,000	8,578	6814	9823
	1,381	1,848	1,543	978	1,968	9,668	9,000	6,394		
	1223	521	2,418	1,894	411	9,823	9,000	6,814		
	2,765	2,558	1,900	3,114	1,244	15,560	17,000	9,794		
	2,034	1,271	1,245	1,726	406	10,243	9,000	9,550		
	640	1,549	1,229	751	150	5,416	7,000	4,156		
	1,879	1,481	1,320	614	906	8,574	8,000	6,924		
	1,181	1,279	1,246	1,128	360	8,543	7,000	6,412		
	184	510	168	251	716	2,521	4,000	3,781		
	1,036	1,468	2,515	1,811	1,684	11,542	11,000	9,102		
	2,008	1,303	2,084	1,788	438	11,297	12,000	10,268		
	649	1,293	978	1,996	1,219	7,019	7,000	5,795		
	740	1,206	1,381	1,688	485	8,765	8,000	6,902		
	1,400	2,160	1,444	1,426	1,195	11,017	12,000	8,558		
	1,420	2,188	899	595	494	7,618	6,000	5,892		
	21,374	22,148	21,676	22,561	13,336	142,057	138,000	108,920		

6. Identify sales information for the Sydney store on Thursday 20 October. They had a VIP promotion that day.
 - a. Create an additional column to show the sales figures for the Sydney store on Thursday 20 October 2016.
 - b. Use the HLOOKUP formula to insert the Sydney sales figures in the new column.

L2

	A	B	C	D	E	F	G	H	I	J	K	L
	Trading Store	Mon 17/10/16	Tues 18/10/16	Wed 19/10/16	Thu 20/10/16	Fri 21/10/16	Sat 22/10/16	Sun 23/10/16	Mon 17/10/16 to Sun 23/10/16 (\$AU)	Budgeted Sales (\$AU)	Mon 19/10/15 to Sun 25/10/15 (\$AU)	Sydney sales 20 Oct 2016
1												
2	Burwood	3,152	762	2,714	3,504	1,953	3,949	2,848	18,882	18,000	14,860	7456
3	Richmond	1,735	422	2,483	1,274	2,107	2,079	1,359	11,459	12,000	11,015	
4	Brisbane	326	2,245		1,194	2,554	942	501	7,762	7,000	8,335	
5	Waverley	1,235	2,543	1,242	3,141	1,802	1,749	1,709	13,421	14,000	23,468	
6	Castle Towers	2,127	3,245	3,099	2,217	4,697	3,716	2,382	21,483	22,000	29,605	
7	Charlestown	2,072	1,318	1,218	4,343	3,431	3,915	1,846	18,143	17,000	19,925	
8	Chermside	923	1,758	2,034	2,448	2,901	2,435	2,345	14,844	16,000	17,013	
9	Doncaster	4,551	4,393	2,485	2,958	2,802	2,893	3,517	23,599	25,000	29,775	
10	Sunnybank	1,951	1,428	2,152	5,294	1,931	3,769	2,503	19,028	19,000	18,150	
11	Highpoint	2,170	1,682	2,184	3,847	5,027	3,290	1,582	19,782	19,000	11,628	
12	Rockdale	1,604	2,569	2,331	4,930	4,604	2,752	2,479	21,269	22,000	20,835	
13	Melbourne	1,737	2,409	2,508	3,825	3,124	4,552	2,286	20,441	23,000	22,150	
14	Parramatta	1,097	1,190	2,312	5,141	2,405	5,125	2,519	19,789	18,000	18,256	
15	Perth	1,397	2,620	2,951	2,968	9,471	3,957	2,009	25,373	23,000	18,017	
16	Sydney	2,321	3,728	8,132	7,456	11,523	4,605	3,628	41,393	40,000	29,623	
17	All	28,398	32,312	37,845	54,540	60,332	49,728	33,513	296,668	295,000	262,880	
18												

Task Two: Trend in usage of the 'zirconi.co.nz' website

David Pinaar, the Marketing Manager, is considering making changes to the website. David asked you to produce a graph showing the trend in usage of the website since February 2013. He told you to use the data 'Unique visitors to zirconi.co.nz'.

1. Use appropriate Excel functions to show the trend in the data.



Task Three: Data for various suitcase sizes

Nicola Dunn, the Category Manager, wants to see if sales of various suitcase sizes have been affected by recent airline discounts for 'carry-on baggage only'. She asked you to produce information so she can compare sales for the various sizes. She told you to use the data in the Excel file 'MTD_analysisCY2016_suitcase_size'.

1. Separate the single Category column (e.g. 'Soft Suit Lge') into two columns; with one for the bag size.

Period 2016, 2016					
Cube Sales Processed: September 16, 2016 10:10 a.m. NZST					
Code	Brand	Style	Colour	Category	Size
3146611	Lightflight	Wander 20 Spin	Purple	SoftSuit	Small
3145669	Airlite	Superlite 3.0 55 cm	Black	SoftSuit	Small
3156005	Lightflight	Wander 20 Spin	Teal	SoftSuit	Small
3116792	Lantra	FW Paisley 21 Case	Black/Grey	SoftSuit	Small
3158182	Airlite	Superlite 3.0 50 cm	Black	SoftSuit	Small
3139689	Fellini	S-lite 21 Case	Black	SoftSuit	Small
3145596	Fellini	Link 21 Case	Charcoal/A	SoftSuit	Small
3158481	Fellini	S-lite 54 cm Spinner	Navy	SoftSuit	Small
3153747	Fellini	Quad Turn 21 Case	Grey/Lime	SoftSuit	Small
3158184	Airlite	Superlite 3.0 50 cm	Grey/Yellow	SoftSuit	Small
3155518	Fellini	Quad Turn 21 Case	Blue	SoftSuit	Small
3145675	Airlite	Superlite 3.0 55 cm	Grey/Yellow	SoftSuit	Small
3158477	Fellini	S-lite 54 cm Spinner	Black	SoftSuit	Small
3139746	Steve West	Link 50 cm Case	Black	SoftSuit	Small

2. Use an Excel function to add a total at the bottom of the 'Units Sold' column on the small, medium and large worksheets.

Formula used to perform this process: =SUM(G6:G62)

3136261	Standford	Safe 55cm Spin Case	Blue	Hard Suit Small	399	9
3152416	Airlite	Tourer 55cm Case	Orange	Hard Suit Small	219	1
3145663	Standford	Lite Pro 55cm	Petrol	Hard Suit Small	579	
3136250	Standford	Lite Poly 55cm Case	Champagne	Hard Suit Small	679	4
3158444	Standford	Sunlite 55cm	Gold	Hard Suit Small	399	
3158159	Superior	Jem 20	Multi	Hard Suit Small	220	5
3152615	Greenfield	Laptop Spin Small	Black	Hard Suit Small	599	6
					Total units sold	466

3153795	Glidelite	Mantra 25 Case	Black	Soft Suit Med	289	19
3155517	Fellini	Quad Turn 24 Case	Blue	Soft Suit Med	220	6
3145626	Standford	Lite-C 2 71 cm	Chilli Red	Soft Suit Med	429	4
3149757	Glidelite	Symbol 18 Case	Tan	Soft Suit Med	249	8
3149756	Glidelite	Symbol 25 Case	Tan	Soft Suit Med	289	6
3158153	Superior	Collage 24	Multi	Soft Suit Med	300	2
3145622	Standford	Lite-C 2 71 cm	Black	Soft Suit Med	429	20
3156550	Airlite	Superlite 3.0 71 cm	Orange	Soft Suit Med	279	1
					Total units sold	252

3158284	Lightflight	Print 28 Case	Black/White	Soft Suit Lge	210	2
3145677	Airlite	Superlite 3.0 82 cm	Grey/Yellow	Soft Suit Lge	299	5
3116794	Lantra	FW Paisley 28 Case	Black/Grey	Soft Suit Lge	200	12
3158479	Fellini	S-lite 80 cm Spinner	Navy	Soft Suit Lge	200	13
3139748	Steve West	Link 71cm Spin	Navy	Soft Suit Lge	399	9
3158475	Fellini	S-lite 80 cm Spinner	Black	Soft Suit Lge	200	21
3152413	Airlite	Superlite 3.0 82 cm	Teal	Soft Suit Lge	299	9
3155516	Fellini	Quad Turn 29 Case	Blue	Soft Suit Lge	240	11
					Total units sold	184

3. Produce a summary sheet showing the sales for the different bag sizes.
 - a. Create a new worksheet that displays the total units sold for each of the three size categories for the month of September 2016 (use the linking feature).

The screenshot shows a spreadsheet interface. The formula bar at the top displays the formula `=small!G63`. Below the formula bar, the spreadsheet grid is visible with columns A, B, and C, and rows 1 through 7. Row 1 contains the text "Sales Processed: March 18, 2017 10:10 a.m. NZST". Row 3 contains the header "Number of units sold in September 2016". Row 4 contains "Small" in column A and "466" in column B. Row 5 contains "Medium" in column A and "252" in column B. Row 6 contains "Large" in column A and "184" in column B. The cell containing "466" is highlighted in yellow.

	A	B	C
1	Sales Processed: March 18, 2017 10:10 a.m. NZST		
2			
3		Number of units sold in September 2016	
4	Small	466	
5	Medium	252	
6	Large	184	
7			

Task Four: Solutions for Data Entry Errors

1. The IT Systems Manager is concerned at the number of errors that have been occurring when product codes are entered on product worksheets. He asked you to set up a condition to reduce errors, in the Excel file 'Sales analysis 2017 smallsuitcase'. He told you that all product codes have 7 digits, and only product codes 1000000 or over can be entered.
 - a. In an Excel file, create a validation to meet the IT Systems Manager's conditions. The validation must include settings, input message and error alert.

The screenshot shows an Excel spreadsheet with a table of product data. A yellow callout box points to the 'Code' column, stating 'Product Code Please enter a number with 7 digits'. A 'Data Validation' dialog box is open over the spreadsheet, with the 'Settings' tab selected. The 'Validation criteria' section is set to 'Whole number' with 'Ignore blank' checked. The 'Data' section is set to 'between'. The 'Minimum' value is 1000000 and the 'Maximum' value is 9999999. The 'Apply these changes to all other cells with the same settings' checkbox is unchecked. The 'OK' button is highlighted.

Code	Brand	Style
314		Wander 20 Spin
314		Superlite 3.0 55 cm
315		Wander 20 Spin
3116792	Lantra	FW Paisley 21 Case
3158182	Airlite	Superlite 3.0 50 cm
3139689	Fellini	S-lite 21 Case
3145596	Fellini	Link 21 Case
3158481	Fellini	S-lite 54 cm Spinner
3153747	Fellini	Quad Turn 21 Case
3158184	Airlite	Superlite 3.0 50 cm
3155518	Fellini	Quad Turn 21 Case
3145675	Airlite	Superlite 3.0 55 cm
3158477	Fellini	S-lite 54 cm Spinner
3139746	Steve West	Link 50 cm Case
3145621	Standford	Ultralite Carry 55cm

The screenshot shows the same Excel spreadsheet and 'Data Validation' dialog box, but with the 'Input Message' tab selected. The 'Show input message when cell is selected' checkbox is checked. The 'Title' is 'Product Code' and the 'Input message' is 'Please enter a number with 7 digits.' The 'OK' button is highlighted.

The screenshot shows the same Excel spreadsheet and 'Data Validation' dialog box, but with the 'Error Alert' tab selected. The 'Show error alert after invalid data is entered' checkbox is checked. The 'Style' is 'Stop', the 'Title' is 'Not a valid number', and the 'Error message' is 'You must enter a number between 1000000 and 9999999.' The 'OK' button is highlighted.

2. Customer Services staff are having some problems when dealing with customer queries because dates have been incorrectly entered in the database. The Customer Services Manager asked you to set up a condition in the Customer Club database to reduce the chance of these errors happening.
 - a. In a database application, create a validation on the Join Date so that only dates in 2016 are accepted.
 - b. Create a validation on the Date of birth so that only dates between 1910 and 2000 are accepted.
 - c. Create an error alert for each validation.

NOTE: Sample answers are not provided for this question as these will depend on the database used.

Task Five: Sales Promotion

The company is running a promotion on small suitcases. They are to be discounted by 30% for a two-week period. Scott Ford in the Marketing Department asked you to email him with the discounted price for the Integra Columbo 55cm Sp Case in Black because it is being used in the advertising brochure. He said you should use the Excel file for your calculations.

1. In the Excel file 'MTD_analysisCY2016_suitcase_size', create an additional column to show the discounted price for all bags.

Code	Brand	Style	Colour	Category	Retail \$	30% dis
3146611	Lightflight	Wander 20 Spin	Purple	Soft Suit Small	200	140.00
3145669	Airlite	Superlite 3.0 55 cm	Black	Soft Suit Small	219	153.30
3156005	Lightflight	Wander 20 Spin	Teal	Soft Suit Small	200	140.00
3116792	Lantra	Fw Paisley 21 Case	Black/Grey	Soft Suit Small	150	105.00
3158182	Airlite	Superlite 3.0 50 cm	Black	Soft Suit Small	200	140.00
3139689	Fellini	S-lite 21 Case	Black	Soft Suit Small	200	140.00
3145596	Fellini	Link 21 Case	Charcoal/Aqua	Soft Suit Small	180	126.00
3158481	Fellini	S-lite 54 cm Spinner	Navy	Soft Suit Small	150	105.00
3153747	Fellini	Quad Turn 21 Case	Grey/Lime	Soft Suit Small	190	133.00
3158184	Airlite	Superlite 3.0 50 cm	Grey/Yellow	Soft Suit Small	200	140.00
3155518	Fellini	Quad Turn 21 Case	Blue	Soft Suit Small	190	133.00
3145675	Airlite	Superlite 3.0 55 cm	Grey/Yellow	Soft Suit Small	219	153.30
3158477	Fellini	S-lite 54 cm Spinner	Black	Soft Suit Small	150	105.00
3139746	Steve West	Link 50 cm Case	Black	Soft Suit Small	249	174.30
3145621	Standford	Ultralite Carry 55cm	Black	Soft Suit Small	299	209.30
3110545	Standford	Ultralite Carry 55cm	Platinum	Soft Suit Med	299	209.30
3153750	Fellini	Quad Turn 21 Case	Black/Red	Soft Suit Small	190	133.00
3158488	Fellini	S-lite 20 cm Spinner	Graphite	Soft Suit Small	200	140.00
3153796	Gidelite	Mantra 05 Case	Black	Soft Suit Small	249	174.30
3145675	Airlite	Superlite 3.0 55 cm	Blue	Soft Suit Small	219	153.30
3158164	Andrea	Airbrook 2 56cm Case	Navy	Soft Suit Small	299	209.30
3158164	Andrea	Airbrook 2 56cm Case	Charcoal/Aqua	Soft Suit Small	299	209.30
3158408	Standford	S-lite 55 cm Spinner	Pearl	Soft Suit Small	329	230.30
3158184	Airlite	Superlite 3.0 50 cm	Blue	Soft Suit Small	199	139.30
3158478	Fellini	S-lite 48 cm Spinner	Black	Soft Suit Small	140	98.00
3139750	Steve West	Link 50 cm Case	Navy	Soft Suit Small	249	174.30
3139749	Steve West	Link 55 cm Spin	Navy	Soft Suit Small	299	209.30
3158403	Standford	Flip-top 55cm Int spin	Black	Soft Suit Small	399	279.30
3139745	Steve West	Link 55 cm Spin	Black	Soft Suit Small	299	209.30
3152411	Airlite	Superlite 3.0 55 cm	Teal	Soft Suit Small	219	153.30
3145625	Standford	Lite-C 2 55 cm Spinner	Chilli Red	Soft Suit Small	299	209.30
3158149	Lucy Rae	Santos 20 Spin	Multi	Soft Suit Small	190	133.00
3139730	Fellini	Zinc 20 Case	Black	Hard Suit Small	190	133.00
3116824	Integra	London 56 cm HC Exp	Multi	Hard Suit Small	220	154.00
3153618	Standford	Duralite 55 cm Spin	Black	Hard Suit Small	299	209.30
3139293	Airlite	Tourer 55cm Case	Black	Hard Suit Small	219	153.30
3136220	Fellini	Zinc 20 Case	White	Hard Suit Small	190	133.00
3151431	Airlite	Tourer 55cm Case	Navy	Hard Suit Small	190	133.00
3158417	Standford	Candice 2 55cm Spin	Midnight Blue	Hard Suit Small	579	405.30
3158218	Airlite	Tourer 55cm Case	Grey	Hard Suit Small	219	153.30
3158422	Standford	Candice 2 55cm Spin	Pearl	Hard Suit Small	579	405.30
3158412	Standford	Candice 2 55cm Spin	Copper	Hard Suit Small	579	405.30
3145660	Standford	Lite Pro 55cm	Black	Hard Suit Small	579	405.30
3153821	Standford	Duralite 55 cm Spin	White	Hard Suit Small	299	209.30
3158485	Fellini	E-Fly 20 Spin Case	Blue	Hard Suit Small	190	133.00
3146635	Integra	Colombo 55cm Sp Ca	Black	Hard Suit Small	200	140.00
3136247	Standford	Lite Poly 55cm Case	Graphite	Hard Suit Small	679	475.30
3158174	Andrea	Flash 56cm Case	Green	Hard Suit Small	219	153.30
3158177	Andrea	Flash 56cm Case	Charcoal	Hard Suit Small	219	153.30
3136260	Standford	Safe 55cm Spin Case	Black	Hard Suit Small	399	279.30
3136261	Standford	Safe 55cm Spin Case	Blue	Hard Suit Small	399	279.30
3152416	Airlite	Tourer 55cm Case	Orange	Hard Suit Small	219	153.30
3145663	Standford	Lite Pro 55cm	Petrol	Hard Suit Small	579	405.30
3136250	Standford	Lite Poly 55cm Case	Champagne	Hard Suit Small	679	475.30
3158444	Standford	Sunlite 55cm	Gold	Hard Suit Small	399	279.30
3158159	Superior	Jem 20	Multi	Hard Suit Small	220	154.00
3152615	Greenfield	Laptop Spin Small	Black	Hard Suit Small	599	419.30

2. Use the VLOOKUP formula to insert the discounted price for this suitcase.

`=VLOOKUP(3146635,A5:H61,8,FALSE)`

	C	D	E	F	G	H	I
2		Colour	Style and Colour	Category	Retail \$	30% dis	
							Discounted price of Integra Colombo 55cm Sp Case Black
	Wander 20 Spin	Purple	Wander 20 Spin Purple	Soft Suit Small	200	140.00	140.00
	erlite 3.0 55 cm	Black	Superlite 3.0 55 cm Black	Soft Suit Small	219	153.30	
	Wander 20 Spin	Teal	Wander 20 Spin Teal	Soft Suit Small	200	140.00	
	Paisley 21 Case	Black/Grey	FW Paisley 21 Case Black/Grey	Soft Suit Small	150	105.00	
	erlite 3.0 50 cm	Black	Superlite 3.0 50 cm Black	Soft Suit Small	200	140.00	
	e 21 Case	Black	S-lite 21 Case Black	Soft Suit Small	200	140.00	
	21 Case	Charcoal/Aqua	Link 21 Case Charcoal/Aqua	Soft Suit Small	180	126.00	
	54 cm Spinner	Black	S-lite 54 cm Spinner Black	Soft Suit Small	150	105.00	

3. Write an email to Scott with the discounted price for this suitcase.

From: Sarah Waerea
 To: Scott Ford
 Subject: Discounted price for Integra suitcase

Hi Scott

I understand that the Integra Colombo 55cm Sp Case is being used for the advertising brochure being designed.

There will be a 30% discount on this bag. The discounted price will be \$140.

If you have any queries let me know.

Regards

Sarah Waerea
 Administrator
 Zirconi Bags
 DDI 09 387 2775
 zirconi.co.nz

Task Six: Calculate depreciation on a new purchase

The dishwasher in the staff kitchen is being replaced. You were asked to find out how much depreciation should be claimed for the new dishwasher each year. You were given the following information:

- The dishwasher will be purchased for \$1,200.
- It is estimated that it will have a useful life of 3 years.
- The depreciation rate for the dishwasher will be 21% per annum.
- The Straight-Line method of depreciation will be used.

1. Use formulae in Excel to calculate the salvage value of the dishwasher.
2. Use an Excel function to calculate the depreciation on the dishwasher each year.

The formula used to perform this process: =SLN(1200;592;3)

Calculation of annual depreciation claimed using the Straight Line Depreciation method			
Original cost of dishwasher		1200	
Depreciation rate (per annum)		21%	
Calculating salvage value after 3 years			
	Cost of Asset		1,200
Year 1	21% Depreciation		252
			948
Year 2	21% Depreciation		199.08
			749
Year 3	21% Depreciation		157.2732
			592 Salvage value
Original cost		1,200	
Salvage value		592	
Estimated useful life of the asset		3	
Depreciation per annum		\$202.67	

Task Seven: Process quotes for the reception area upgrade

The reception area is due to be upgraded. The Operations Manager asked you to get three quotes for the building and painting work required, and show this on a worksheet for him to review.

1. Create a worksheet showing the quoted price, both including GST and excluding GST.
2. Use an Excel function to show the lowest price for each trade.
3. Use an Excel function to calculate the combined total of the lowest prices for each trade.

Calculation for Quoted prices excluding GST:

C7		=E7/1.125			
	A	B	C	D	E
1	Quotes for Reception Upgrade				
2					
3			Quote Excl GST)		Quote (Incl GST)
4					
5	Building work				
6					
7	RDT Building Ltd		\$3,333.33		\$3,750.00
8	A1 Construction Ltd		\$2,240.00		
9	Manders Building Company		\$2,391.11		\$2,690.00
10					
11	Lowest price				
12					
13	Painting work				
14					
15	P & B Decorating Ltd		\$3,160.00		
16	Porters Painting Ltd		\$3,982.22		\$4,480.00
17	Rainbow Painters Ltd		\$4,311.11		\$4,850.00
18					

Calculation for quoted price including GST:

E8		=C8*1.125			
	A	B	C	D	E
1	Quotes for Reception Upgrade				
2					
3			Quote Excl GST)		Quote (Incl GST)
4					
5	Building work				
6					
7	RDT Building Ltd		\$3,333.33		\$3,750.00
8	A1 Construction Ltd		\$2,240.00		\$2,520.00
9	Manders Building Company		\$2,391.11		\$2,690.00
10					
11	Lowest price				
12					
13	Painting work				
14					
15	P & B Decorating Ltd		\$3,160.00		\$3,555.00
16	Porters Painting Ltd		\$3,982.22		\$4,480.00
17	Rainbow Painters Ltd		\$4,311.11		\$4,850.00
18					

Finding lowest price for each trade (excluding GST):

		A	B	C	D	E
1	Quotes for Reception Upgrade					
2						
3				Quote Excl GST)		Quote (Incl GST)
4						
5	Building work					
6						
7	RDT Building Ltd			\$3,333.33		\$3,750.00
8	A1 Construction Ltd			\$2,240.00		\$2,520.00
9	Manders Building Company			\$2,391.11		\$2,690.00
10						
11	Lowest price (excl GST)			\$2,240.00		
12						
13	Painting work					
14						
15	P & B Decorating Ltd			\$3,160.00		\$3,555.00
16	Porters Painting Ltd			\$3,982.22		\$4,480.00
17	Rainbow Painters Ltd			\$4,311.11		\$4,850.00
18						
19	Lowest price (excl GST)			\$3,160.00		

Finding lowest total price for project (excluding GST):

		A	B	C	D	E
1	Quotes for Reception Upgrade					
2						
3				Quote Excl GST)		Quote (Incl GST)
4						
5	Building work					
6						
7	RDT Building Ltd			\$3,333.33		\$3,750.00
8	A1 Construction Ltd			\$2,240.00		\$2,520.00
9	Manders Building Company			\$2,391.11		\$2,690.00
10						
11	Lowest price (excl GST)			\$2,240.00		
12						
13	Painting work					
14						
15	P & B Decorating Ltd			\$3,160.00		\$3,555.00
16	Porters Painting Ltd			\$3,982.22		\$4,480.00
17	Rainbow Painters Ltd			\$4,311.11		\$4,850.00
18						
19	Lowest price (excl GST)			\$3,160.00		
20						
21	Lowest total price (excl GST)			\$5,400.00		