



National Certificate of Educational Achievement
TAUMATA MĀTAURANGA Ā-MOTU KUA TAEA

Exemplar for Internal Achievement Standard

Accounting Level 3

This exemplar supports assessment against:

Achievement Standard 91409

Demonstrate understanding of a job cost subsystem for an entity

An annotated exemplar is an extract of student evidence, with a commentary, to explain key aspects of the standard. It assists teachers to make assessment judgements at the grade boundaries.

New Zealand Qualifications Authority

To support internal assessment

	Grade Boundary: Low Excellence
1.	<p>For Excellence, the student needs to demonstrate comprehensive understanding of a job cost subsystem for an entity.</p> <p>This involves:</p> <ul style="list-style-type: none"> • justifying the application of elements of a job cost subsystem to an entity to enable an entity to maintain its viability • processing detailed financial information to justify the cost of a job. <p>This student has accurately calculated the quotes for legal services from Legal Eagles and from Levin Law (1), and has then compared the two firms' methods of allocating costs (2). An overhead control account has been used to calculate over-applied overhead for Legal Eagles (3).</p> <p>The purpose of Legal Eagles' job cost subsystem has been effectively explained (4). A justification for using partners' hours as the cost driver has been provided (5). The student has justified how the over-application of overheads occurred (6).</p> <p>For a more secure Excellence, the student could expand their comment on how Legal Eagles' job cost subsystem will enable the firm to meet its profit goals and contribute to ongoing operations. Further evidence could be provided about the consequence for ongoing operations of over-applying overhead costs.</p>

The WIP computer software ledger account has been omitted from this exemplar.

Legal Eagles

Direct costs	Partners' hours: 850 x \$70	59,500
	Associate lawyer hours: 1,350 x \$40	54,000
	Travel	1,500
	Photocopying	2,300
	Telephone	2,700
		\$120,000
Indirect costs	Overhead rate: \$70,000/70,000 = \$1 per partner hour	
	Overhead costs: 850 x \$1	850
	Total cost	\$120,850
	Mark-up	145,020
	Selling price	\$265,870
	GST	39,881
		\$305,751

①

Levin Law

Direct costs	Partners' hours: 850 x \$70	59,500
	Associate lawyer hours; 1,350 x \$40	54,000
		\$113,500
Indirect costs	Overhead rate: \$98,000/70,000 = \$1.40 per partner hour	
	Overhead costs: 850 x \$1.40	1,190
	Total cost	\$114,690
	Mark-up	137,628
	Selling price	\$252,318
	GST	37,848
		\$290,166

③

Legal Eagles Overhead Control Account					
Date		Dr	Cr	Bal	Dr/Cr
	Accounting	8,500		8,500	Dr
	Rental	34,000		42,500	Dr
	Support wages	19,000		61,500	Dr
	Cleaning	3,500		65,000	Dr
	Other expenses	2,500		67,500	Dr
	Overhead applied		74,000	6,500	Cr
	Cost of goods sold	6,500		---	

Legal Eagles runs a job cost subsystem where all costs for each job (case) are recorded. Some will be direct costs that can be directly traceable to the case. Any indirect costs of generally running the law firm, such as electricity, cleaning and rent are costed using an overhead rate based on the number of partners' hours that the case uses. When a new job comes in a partner will cost it, that is, estimate how many hours of partner and lawyer time it will take to complete the case. Using this information and overheads, the total cost plus mark-up plus GST will give the estimated total cost of the job to quote to the client. ④

A systematic job cost subsystem will ensure that all direct costs related to a particular law case are recorded against the client's name and included on their invoice. For example, if partners or associate lawyers have to travel to interview experts or do research for the copyright case, travel costs will be paid by Legal Eagles but passed onto the client. Lawyers and support staff would be trained to keep an accurate log of travel time and costs, and other costs directly traceable to each case so that the client is charged for them and Legal Eagles doesn't end up having to absorb the expenses. If the firm didn't charge these expenses to the clients their profit margin would be reduced, possibly placing the future of Legal Eagles in jeopardy. ④

Legal Eagles uses partners' hours as their cost driver for allocating overheads to the legal cases because partners' hours determine the overheads used. For example, it is estimated that it will take the partners 850 hours to argue the copyright case. Behind the work partners do on the case, support staff will be attending meetings, researching, gathering data, producing documents, etc to help the partners prepare their legal argument. Partners and support staff will be occupying the offices, using electricity, using consumables, incurring cleaning costs, and so on. A very simple case that might take only 10 hours of partner time would incur a proportionately smaller amount of overhead, making partners' hours the best overhead driver for a law practice. ⑤

The quoted price for Levin Law is lower than Legal Eagles due to Levin Law not allocating all of their direct costs to the case (travel, photocopying and telephone haven't been allocated). These direct costs are treated as overhead for Levin Law and are spread across all jobs which might not be fair to all of their clients. This doesn't give an accurate indication of the cost of a job as the direct costs are not being charged to clients. On an annual basis the mark-up of 120% may not be reached, that is, income may not be 120% higher than COGS. Since the quote from Levin Law is almost \$16,000 lower, Legal Eagles will probably lose out on getting the job. ②

Legal Eagles' overhead rate of \$1 per partner hour is based on estimates so at times there may be over- or under-applied overhead. For the year, Legal Eagles expected the partners to work on cases for 70,000 hours and that overhead costs would be \$70,000. But partners actually worked 74,000 hours and the actual overheads were \$67,500 so Legal Eagles over-applied overheads of \$6,500. As a proportion of total costs this is reasonably insignificant, and it is better that overheads are over-charged rather than under-charged. ⑥

Some sections of the student's narrative response have been omitted from this exemplar.

	Grade Boundary: High Merit
2.	<p>For Merit, the student needs to demonstrate in-depth understanding of a job cost subsystem for an entity.</p> <p>This involves:</p> <ul style="list-style-type: none"> • explaining the application of elements of a job cost subsystem to an entity to maintain its viability • processing detailed financial information to determine the cost of a job. <p>This student has accurately calculated the quotes for legal services from Legal Eagles and from Levin Law (1). The quotes from the two firms have been compared in the report (2). Journal entries for Legal Eagles have been prepared (3).</p> <p>The student has indicated that Levin Law’s omission of some direct costs in their quote may have an impact on their ability to maintain their viability (4). There is an implication that Legal Eagles’ inclusion of all direct costs in the quote enhances their long-term viability (5). The use of partners’ hours as a cost driver has been justified (6).</p> <p>There is sufficient accuracy of processing detailed financial information (1) (3). A report has been prepared that explains the application of the job cost elements for Legal Eagles (2).</p> <p>To reach Excellence, the student could more accurately process the overhead account to calculate over-applied overhead. They could also elaborate on how tracing all direct costs back to the client contributes to the long-term viability of Legal Eagles.</p>

Student 2: High Merit

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The student has accurately calculated quotes for Legal Eagles and the competitor. Their figures are as for Student 1. ①

An overhead account for Legal Eagles has been attempted.

Legal Eagles General Journal			
xxx	Work in progress – copyright case	59,500	
	Labour		59,500
	(to record partners' hours)		
xxx	Work in progress – copyright case	54,000	
	Labour		54,000
	(to record associate lawyer hours)		
xxx	Work in progress – copyright case	1,500	
	Travel expenses		1,500
	(to record travel for copyright case)		
xxx	Work in progress – copyright case	2,300	
	Photocopying and printing		2,300
	(to record copying and printing costs for copyright case)		
xxx	Work in progress – copyright case	2,700	
	Telephone and internet		2,700
	(to record communication expenses for copyright case)		
xxx	Work in progress – copyright case	850	
	Overhead applied		850

③

Report 2

Legal Eagles operates a job cost subsystem to calculate the total costs of their jobs (legal cases) that they work on. Once they have the total cost determined, they calculate the price to charge the client based on a mark-up of 120%.

A computer software supplier has approached Legal Eagles to work for them on a case of a breach of copyright laws. As Legal Eagles' cost consultant I have calculated a total price to be \$305,750 including GST.

Levin Law's quote was less than Legal Eagles' quote so they will probably get the client's job, but whether Levin Law will be able to complete the job is questionable as they are not assured of covering all of their costs so their ability to sustain their business could be in question. Legal Eagles accurately calculates a total cost for the law case by recording all direct and indirect costs using an accurate job cost subsystem. In contrast, Levin Law has quoted for lawyer hours and overheads but with direct costs of the job (like photocopying and travel) included within the overheads. They might find at the end of the year that they haven't charged enough overhead to clients to cover all the actual overheads and non-staff direct costs.

4

It is very important to accurately determine the total cost of all jobs in order for costs to be covered through client billing and also in order for the business to know their costs accurately so that they can be better controlled. This will contribute to the long-term viability of the business.

5

Legal Eagles uses partners' hours as their overhead rate because the amount of time the partners work on a case seems to best determine the amount of overhead costs the case uses. This is because a large proportion of overhead costs are related to running the offices and it is the partners who mainly use the space in the offices of Legal Eagles so the more hours that the partners are working on cases, the higher the overhead costs.

6

Some sections of the student's narrative response have been omitted from this exemplar.

	Grade Boundary: Low Merit
3.	<p>For Merit, the student needs to demonstrate in-depth understanding of a job cost subsystem for an entity.</p> <p>This involves:</p> <ul style="list-style-type: none">• explaining the application of elements of a job cost subsystem to an entity to maintain its viability• processing detailed financial information to determine the cost of a job. <p>This student has prepared an overhead control account for Legal Eagles (1). Elements of the job costing subsystem have been explained (2). The connection between the application of overhead and the viability of the firm has been implied (3).</p> <p>For a more secure Merit, the student could accurately calculate the over-applied overhead. Within the comparison of Legal Eagles and its opposition, specific quote amounts could be included.</p>

Student 3: Low Merit

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Legal Eagles Overhead Control Account				
	Dr	Cr	Bal	Dr/Cr
Accounting	8,500		8,500	Dr
Rental	34,000		42,500	Dr
Support wages	19,000		61,500	Dr
Cleaning	3,500		65,000	Dr
Other expenses	2,500		67,500	Dr
Overhead applied		70,000	2,500	Cr
Cost of goods sold	2,500		-	

①

Legal Eagles records all costs associated with each legal case. This includes all of the photocopying that is done on that case, all the travel for the lawyers, all the telephone calls and all the hours that both the partners and associate lawyers spend working on the case. These costs are easy enough to record as they are directly related to a specific job/case.

②

Some costs are not directly related to the job so these are recorded as overheads and are allocated to the job using an overhead rate based on the number of partners' hours. Partners' hours are used because the overhead costs are incurred mainly by the number of partners as they work on cases. The overhead rate is calculated by taking the total estimated overhead costs and dividing this by the number of estimated partners' hours.

Sometimes Legal Eagles has over-applied overhead which means more overhead was charged to jobs for the year than was actually incurred. This needs to be controlled to ensure that Legal Eagles is not consistently over-charging their clients and possibly missing out on getting cases due to their quotes being a lot higher than their competitors. On the other side of the coin, under-applied overheads means that Legal Eagles is not covering all of its overhead costs for the year, which also impacts on their profit as it reduces the mark-up on the cases.

③

In this case, Legal Eagles' quote is higher than Levin Law but this is mainly due to Levin Law not recording all of the costs of their job. It is important to record all costs in order to ensure that all costs are covered so that the business can continue to operate at a profitable level.

③

Some sections of the student's narrative response have been omitted from this exemplar.

	Grade Boundary: High Achieved
4.	<p>For Achieved, the student needs to demonstrate understanding of a job cost subsystem for an entity.</p> <p>This involves:</p> <ul style="list-style-type: none"> • explaining the purpose and elements of a job cost subsystem for an entity • processing financial information to determine the cost of a job • applying elements of a job cost subsystem to an entity to maintain its viability. <p>This student has accurately calculated quotes for Legal Eagles and the opposition (1). An overhead control account has been prepared using incorrect overhead data, but demonstrating an understanding of the process (2).</p> <p>The purpose of the job costing subsystem has been explained (3), with some elements placed in the context of Legal Eagles. The student has given a valid, though generic, explanation as to why partners' hours are the best cost-driver for overheads in a law practice (4).</p> <p>There is an implied relationship between accurately charging clients and remaining in business long-term (5).</p> <p>To reach Merit, the student could use actual overhead data in the overhead account to calculate the over-application of overhead. Job costing elements could be more closely related to Legal Eagles and explanations as to how the job costing subsystem contributes to ongoing operations could be strengthened.</p>

Student 4: High Achieved
NZQA Intended for teacher use only

The student has accurately calculated quotes for Legal Eagles and the competitor. Their figures are as for Student 1. ①

Legal Eagles Overhead Control Account					
Date		Dr	Cr	Bal	Dr/Cr
xxx	Accounting	8,000		8,000	Dr
xxx	Rental	34,000		42,000	Dr
xxx	Support wages	20,000		62,000	Dr
xxx	Cleaning	4,000		66,000	Dr
xxx	Other expenses	4,000		70,000	Dr
xxx	Overhead applied		70,000	-	

②

Legal Eagles is a law firm that has corporate clients. They and other law firms like Levin Law work on cases and charge the clients for this work.

In order to work out the cost of each job (case), Legal Eagles needs to know the number of hours that lawyers work on the case (both partners and associate lawyers), the amount of telephone, photocopying and travel used on the case and also the amount of overheads. The direct costs (lawyer hours, telephone, photocopying and travel) are known and recorded every time they are used on the case. ③

At the end of the job these costs are totalled and the mark-up is incorporated to ensure that the correct quoted amount is presented to the client. This will help Legal Eagles to stay in business long-term. ⑤

The overhead costs are indirect costs and are not known. Therefore an overhead rate is used to allocate the total overhead for the year to each job. To try and apportion the overhead correctly, the overhead rate is based on the number of partners' hours for the case. Legal cases are very labour intensive jobs so partners' hours are the best option for allocating the overhead. ④

The overhead rate is based on estimated figures (both costs and hours) so there is often a difference between the overhead costs for the year and the overhead that has been applied to the jobs. Obviously it is important that this figure is as small as possible.

Some sections of the student's narrative response have been omitted from this exemplar.

	Grade Boundary: Low Achieved
5.	<p>For Achieved, the student needs to demonstrate understanding of a job cost subsystem for an entity.</p> <p>This involves:</p> <ul style="list-style-type: none"> • explaining the purpose and elements of a job cost subsystem for an entity • processing financial information to determine the cost of a job • applying elements of a job cost subsystem to an entity to maintain its viability. <p>This student has calculated the cost of Legal Eagles arguing a law case (1). Most entries in the overhead account have been correctly entered (2). Some job costing elements have been explained in context (3).</p> <p>The student has made a connection between profitability and the retention of clients, and the viability of Legal Eagles (4).</p> <p>For a more secure Achieved, the student could accurately calculate under- or over-applied overhead. The student could discuss the contrast between direct cost calculation by Legal Eagles and Levin Law, and the impact the difference could have on the future viability of Legal Eagles.</p>

Student 5: Low Achieved
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Direct Costs

Partners' hours:	850 x \$70	59,500
Associate lawyer hours:	1350 x \$40	54,000
Travel		1,500
Photocopying		2,300
Telephone		2,700

1

Indirect Costs

Overhead rate	$\$70,000/70,000 = \1 per partner hour	
Overhead costs	850 x \$1	850
Total costs		\$120,850

Legal Eagles Overhead Control Account					
Date		Dr	Cr	Bal	Dr/Cr
	Accounting	8,500		8,500	Dr
	Rental	34,000		42,500	Dr
	Other support wages	19,000		61,500	Dr
	Cleaning	3,500		65,000	Dr
	Other	3,500		67,500	Dr
	OH Applied		70,000	2,500	Cr

2

A job cost subsystem involves calculating the cost for individual jobs that are all different. In this case the business is Legal Eagles who are an Auckland based law firm. Their jobs are legal cases for corporate clients.

A job cost subsystem calculates all the costs for each job by recording them on a job cost card. Costs are direct and indirect.

Legal Eagles uses partners' hours for their overheads because cases are often won and lost on the amount of preparation time that the lawyer puts in. The case used 850 partner hours so \$850 of overheads is applied to the job. Partners' hours is an appropriate base because the amount of time that a case is worked on is determined by the amount of partners' hours as partners are the most qualified people working on the case.

3

It is important that both direct and indirect costs are calculated and then a mark-up is added to get the price that is charged the corporate client.

3

Legal Eagles needs to both cover their actual costs related to the case as well as the other costs incurred in running the law firm in order to make a profit and also ensure that costs are controlled so that they are not charging too much and missing out on jobs.

4

Some sections of the student's narrative response have been omitted from this exemplar.

	Grade Boundary: High Not Achieved
6.	<p>For Achieved, the student needs to demonstrate understanding of a job cost subsystem for an entity.</p> <p>This involves:</p> <ul style="list-style-type: none"> • explaining the purpose and elements of a job cost subsystem for an entity • processing financial information to determine the cost of a job • applying elements of a job cost subsystem to an entity to maintain its viability. <p>This student has attempted to calculate the cost of Legal Eagles arguing a law case (1), and has prepared minimal journal entries (2). Accurate information about a generic job costing system has been provided (3) though not applied to Legal Eagles.</p> <p>To reach Achieved, the student could ensure that all explanations are in the context of the entity, in this case referring to selling legal services. The student would also need to more accurately process job costing transactions and explain how some of the subsystem's elements relate to the ongoing viability of Legal Eagles.</p>

Student 6: High Not Achieved

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Partners' hours	850 x \$70	59,500	①
Associate lawyer hours	1350 x \$40	54,000	
		\$113,500	

Legal Eagles General Journal			
Date		Debit	Credit
xxx	Work in Progress – copyright case	59,500	
	Labour		59,500
	(to record partners' hours)		
	Work in Progress – copyright case	54,000	
	Labour		54,000
	(to record associate lawyer hours)		

②

A job cost subsystem involves recording hours on time sheets, materials on materials requisition forms and transferring this information to job cost cards. Then a price is calculated that is charged to the customers.

Legal Eagles records all of the costs of their jobs on job cost cards.

The job cost system is used when products are made based on specific customer orders. Each product produced for a customer is considered a single job. Costs are then tracked by job, specific job number or job name. This is very helpful for mechanics so they can make sure the customer is charged the correct amount for parts used in the workshop.

③

The job order cost system must capture and track the costs of producing each job, which should include materials, labour and overhead. To track data, the job cost sheet is used. The job cost sheet tracks the job number, customer information, job information (date started, completed and shipped), individual cost information for materials used, labour and overhead, and a total job cost summary.

③

Overhead is charged to the job using an overhead rate, often based on labour hours. Legal Eagles uses partner hours, so does Levin Law.

The total cost of the job is \$113,500. That was calculated by using both partners' hours and associate lawyer hours.

Some sections of the student's narrative response have been omitted from this exemplar.