

1) An activity-based costing system is generally more difficult to set up and run than a traditional cost system.

بشكل عام ، يعد نظام تقدير التكاليف المستند إلى النشاط أكثر صعوبة في الإعداد والتشغيل من نظام التكلفة التقليدي

Answer: TRUE

2) Unit-level activities are performed each time a new departmental unit such as a regional sales office is created.

يتم تنفيذ الأنشطة على مستوى الوحدة في كل مرة يتم فيها إنشاء إدارة جديدة مثل مكتب مبيعات إقليمي

Answer: FALSE

3) The challenge in designing an activity-based costing system is to identify all of the activities that explain the variation in overhead costs.

يتمثل التحدي في تصميم نظام تقدير التكاليف على أساس النشاط في تحديد جميع الأنشطة التي تشرح التباين في التكاليف العامة.

Answer: FALSE

4) A plantwide predetermined overhead rate based on direct labor-hours results in low overhead costs for products with a high direct labor-hour content and high overhead costs for products with a low direct labor-hour content.

ينتج عن معدل النفقات العامة المحدد مسبقًا على مستوى المصنع استنادًا إلى ساعات العمل المباشرة انخفاض التكاليف العامة للمنتجات ذات المحتوى المباشر العالي لساعات العمل والتكاليف العامة المرتفعة للمنتجات ذات المحتوى المنخفض لساعات العمل المباشرة.

Answer: FALSE

5) In general, activities and costs on different levels in the cost hierarchy — such as unit-level and batch-level costs and activities — should be combined in an activity-based costing system if doing so simplifies the costing system.

بشكل عام ، يجب دمج الأنشطة والتكاليف على مستويات مختلفة في التسلسل الهرمي للتكلفة - مثل التكاليف والأنشطة على مستوى الوحدة والدفعة - في نظام تحديد التكاليف المستند إلى النشاط إذا كان القيام بذلك يبسط نظام تقدير التكاليف

Answer: FALSE

6) An activity cost pool in activity-based costing is a "cost bucket" in which costs related to a particular activity measure are accumulated.

يعتبر جمع تكلفة النشاط في التكلفة المستندة إلى النشاط "حاوية تكلفة" يتم فيها تجميع التكاليف المتعلقة بمقياس نشاط معين

Answer: TRUE

13) Privott, Inc., manufactures and sells two products: Product Z9 and Product N0. The company is considering adopting an activity-based costing system with the following activity cost pools, activity measures, and expected activity:

تقوم شركة Privott، Inc. بتصنيع وبيع منتجين: المنتج Z9 والمنتج N0. تدرس الشركة اعتماد نظام حساب تكاليف قائم على النشاط مع مجموعات تكلفة النشاط التالية ومقاييس النشاط والنشاط المتوقع:

Activity Cost Pools	Activity Measures	Estimated Overhead Cost	Expected Activity		
			Product Z9	Product N0	Total
Labor-related	DLHs	\$ 324,018	6,400	3,000	9,400
Product testing	Tests	45,747	400	500	900
Order size	MHs	471,108	4,000	4,300	8,300
		<u>\$ 840,873</u>			

The activity rate for the Labor-Related activity cost pool under activity-based costing is closest to:

- A) \$91.49 per DLH
- B) \$934.30 per DLH
- C) \$114.37 per DLH
- D) \$34.47 per DLH

Answer: D

Explanation: Activity rate = Estimated overhead cost ÷ Total expected activity
= \$324,018 ÷ 9,400 DLHs = \$34.47 per DLH

14) Jennifer Company has two products: A and B. The company uses activity-based costing. The estimated total cost and expected activity for each of the company's three activity cost pools are as follows:

لدى شركة Jennifer منتجان: A و B. تستخدم الشركة التكلفة على أساس النشاط. التكلفة الإجمالية المقدرة والنشاط المتوقع لكل من مجموعات تكلفة النشاط الثلاثة للشركة هي كما يلي:

Activity Cost Pools	Estimated Overhead Cost	Expected Activity		
		Product A	Product B	Total
Product design	\$ 23,500	400	100	500
Assembling	\$ 18,000	500	200	700
Supporting customers	\$ 34,600	600	300	900

The activity rate under the activity-based costing system for Supporting customers is closest to:

- A) \$36.24
- B) \$38.44
- C) \$84.56
- D) \$115.33

Answer: B

Explanation: Activity rate = Estimated overhead cost ÷ Expected activity = \$34,600 ÷ 900 = \$38.44

15) Latiker, Inc., manufactures and sells two products: Product Y9 and Product W0. Data concerning the expected production of each product and the expected total direct labor-hours (DLHs) required to produce that output appear below:

تقوم شركة Latiker، Inc. بتصنيع وبيع منتجين: المنتج Y9 والمنتج W0. تظهر البيانات المتعلقة بالإنتاج المتوقع لكل منتج وإجمالي ساعات العمل المباشرة المتوقعة (DLHs) المطلوبة لإنتاج هذا الناتج أدناه:

Expected	Direct	Total Direct
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	Production	Labor-Hours Per Unit	Labor-Hours
Product Y9	100	8.0	800
Product W0	100	10.0	<u>1,000</u>
Total direct labor-hours			<u>1,800</u>

The direct labor rate is \$15.40 per DLH. The direct materials cost per unit for each product is given below:

	Direct Materials Cost per Unit
Product Y9	\$253.00
Product W0	\$278.80

The company is considering adopting an activity-based costing system with the following activity cost pools, activity measures, and expected activity:

Activity Cost Pools	Activity Measures	Estimated Overhead Cost	Expected Activity		
			Product Y9	Product W0	Total
Labor-related	DLHs	\$ 61,488	800	1,000	1,800
Machine setups	Setups	50,687	400	300	700
Order size	MHs	<u>155,754</u>	5,000	5,200	10,200
		<u>\$ 267,929</u>			

The activity rate for the Machine Setups activity cost pool under activity-based costing is closest to:

- A) \$31.15 per setup
- B) \$26.27 per setup
- C) \$29.95 per setup
- D) \$72.41 per setup

Answer: D

Explanation: Activity rate = Estimated overhead cost ÷ Total expected activity
= \$50,687 ÷ 700 setups = \$72.41 per setup

16) Chrzan, Inc., manufactures and sells two products: Product E0 and Product N0. Data concerning the expected production of each product and the expected total direct labor-hours (DLHs) required to produce that output appear below:

تقوم شركة Chrzan، Inc. بتصنيع وبيع منتجين: المنتج E0 والمنتج N0. تظهر البيانات المتعلقة بالإنتاج المتوقع لكل منتج وإجمالي ساعات العمل المباشرة المتوقعة (DLHs) المطلوبة لإنتاج هذا الناتج أدناه:

	Expected Production	Direct Labor-Hours Per Unit	Total Direct Labor-Hours
Product E0	300	9.0	2,700
Product N0	1,000	8.0	8,000
Total direct labor-hours			<u>10,700</u>

The company is considering adopting an activity-based costing system with the following activity cost pools, activity measures, and expected activity:

Activity Cost Pools	Activity Measures	Estimated Overhead Cost	Expected Activity		
			Product E0	Product N0	Total
Labor-related	DLHs	\$ 296,390	2,700	8,000	10,700
Production orders	Orders	55,587	300	400	700
Order size	MHs	<u>579,866</u>	5,000	4,700	9,700
		<u>\$ 931,843</u>			

The activity rate for the Order Size activity cost pool under activity-based costing is closest to:

- A) \$44.16 per MH
- B) \$59.78 per MH
- C) \$87.09 per MH
- D) \$37.05 per MH

Answer: B

Explanation: Activity rate = Estimated overhead cost ÷ Total expected activity
= \$579,866 ÷ 9,700 MHs = \$59.78 per MH

17) Strama, Inc., manufactures and sells two products: Product A6 and Product I5. The company has an activity-based costing system with the following activity cost pools, activity measures, and expected activity:

تقوم شركة Strama، Inc. بتصنيع وبيع منتجين: المنتج A6 والمنتج I5. تمتلك الشركة نظامًا لتقدير التكاليف على أساس النشاط مع مجموعات تكلفة النشاط التالية ومقاييس النشاط والنشاط المتوقع:

Activity Cost Pools	Activity Measures	Estimated Overhead Cost	Expected Activity		
			Product A6	Product I5	Total
Labor-related	DLHs	\$ 179,138	7,000	1,600	8,600
Production orders	Orders	38,624	300	500	800
Order size	MHs	171,147	4,400	4,500	8,900
		<u>\$ 388,909</u>			

The activity rate for the Order Size activity cost pool under activity-based costing is closest to:

- A) \$21.25 per MH
- B) \$111.96 per MH
- C) \$45.22 per MH
- D) \$19.23 per MH

Answer: D

Explanation: Activity rate = Estimated overhead cost ÷ Total expected activity
= \$171,147 ÷ 8,900 MHs = \$19.23 per MH

18) Boesenhofer, Inc., manufactures and sells two products: Product N6 and Product N7. The company has an activity-based costing system with the following activity cost pools, activity measures, and expected activity:

تقوم شركة Boesenhofer، Inc. بتصنيع وبيع منتجين: المنتج N6 والمنتج N7. تمتلك الشركة نظامًا لتقدير التكاليف على أساس النشاط مع مجموعات تكلفة النشاط التالية ومقاييس النشاط والنشاط المتوقع:

Activity Cost Pools	Activity Measures	Estimated Overhead Cost	Expected Activity		
			Product N6	Product N7	Total
Labor-related	DLHs	\$ 345,060	2,100	5,000	7,100
Machine setups	Setups	128,534	600	800	1,400
Order size	MHs	107,598	4,100	3,800	7,900
		<u>\$ 581,192</u>			

The activity rate for the Machine Setups activity cost pool is closest to:

- A) \$73.57 per setup
- B) \$91.81 per setup
- C) \$26.24 per setup
- D) \$28.32 per setup

Answer: B

Explanation: Activity rate = Estimated overhead cost ÷ Total expected activity
= \$128,534 ÷ 1,400 setups = \$91.81 per setup

19) Porche, Inc., manufactures and sells two products: Product D4 and Product N0. Data concerning the expected production of each product and the expected total direct labor-hours (DLHs) required to produce that output appear below:

تقوم شركة Porche، Inc. بتصنيع وبيع منتجين: المنتج D4 والمنتج N0. تظهر البيانات المتعلقة بالإنتاج المتوقع لكل منتج وإجمالي ساعات العمل المباشرة المتوقعة (DLHs) المطلوبة لإنتاج هذا الناتج أدناه:

	Expected Production	Direct Labor-Hours Per Unit	Total Direct Labor-Hours
Product D4	100	5.0	500
Product N0	700	2.0	1,400
Total direct labor-hours			<u>1,900</u>

The company is considering adopting an activity-based costing system with the following activity cost pools, activity measures, and expected activity:

Activity Cost Pools	Activity Measures	Estimated Overhead Cost	Expected Activity		
			Product D4	Product N0	Total
Labor-related	DLHs	\$ 32,414	500	1,400	1,900

Machine setups	Setups	13,445	300	200	500
Order size	MHs	415,905	4,200	4,300	8,500
		<u>\$ 461,764</u>			

The activity rate for the Labor-Related activity cost pool under activity-based costing is closest to:

- A) \$17.06 per DLH
- B) \$44.82 per DLH
- C) \$67.23 per DLH
- D) \$923.53 per DLH

Answer: A

Explanation: Activity rate = Estimated overhead cost ÷ Total expected activity
= \$32,414 ÷ 1,900 DLHs = \$17.06 per DLH

20) Moyle Corporation has provided the following data from its activity-based costing accounting system:

قدمت Moyle Corporation البيانات التالية من نظام محاسبة التكاليف على أساس النشاط:

Activity Cost Pools	Estimated Overhead Cost	Expected Activity
Designing products	\$ 396,900	2,450 product design hours
Setting up batches	\$ 8,580	390 batch set-ups
Assembling products	\$ 115,520	7,220 assembly hours

The activity rate for the Designing Products activity cost pool is closest to:

- A) \$396,900 per product design hour
- B) \$62 per product design hour
- C) \$162 per product design hour
- D) \$52 per product design hour

Answer: C

Explanation: Designing products activity rate: \$396,900 ÷ 2,450 product design hours = \$162 per product design hour

21) Data concerning three of the activity cost pools of Brevo LLC, a legal firm, have been provided below:

تم توفير البيانات المتعلقة بثلاثة من مجوعات تكلفة النشاط لشركة Brevo LLC ، وهي شركة قانونية ، أدناه:

Activity Cost Pools	Estimated Overhead Cost	Expected Activity
Researching legal issues	\$ 20,900	550 research hours
Meeting with clients	\$ 154,791	1,053 meeting hours
Preparing documents	\$ 90,400	5,650 documents

The activity rate for the Meeting with Clients activity cost pool is closest to:

- A) \$147 per meeting hour
- B) \$154,791 per meeting hour
- C) \$37 per meeting hour
- D) \$68 per meeting hour

Answer: A

Explanation:

Meeting with Clients activity rate: $\$154,791 \div 1,053 \text{ meeting hours} = \$147 \text{ per meeting hour}$

22) Aikman, Inc., manufactures and sells two products: Product O6 and Product O7. Data concerning the expected production of each product and the expected total direct labor-hours (DLHs) required to produce that output appear below:

تقوم شركة Aikman، Inc بتصنيع وبيع منتجين: المنتج O6 والمنتج O7. تظهر البيانات المتعلقة بالإنتاج المتوقع لكل منتج وإجمالي ساعات العمل المباشرة المتوقعة (DLHs) المطلوبة لإنتاج هذا الناتج أدناه:

	Expected Production	Direct Labor-Hours Per Unit	Total Direct Labor-Hours
Product O6	200	9.0	1,800
Product O7	800	10.0	8,000
Total direct labor-hours			<u>9,800</u>

The direct labor rate is \$17.50 per DLH. The direct materials cost per unit for each product is

given below:

	Direct Materials Cost per Unit
Product O6	\$206.50
Product O7	\$162.30

The company has an activity-based costing system with the following activity cost pools, activity measures, and expected activity:

Activity Cost Pools	Activity Measures	Estimated Overhead Cost	Expected Activity		
			Product O6	Product O7	Total
Labor-related	DLHs	\$ 133,770	1,800	8,000	9,800
Production orders	Orders	18,501	400	300	700
Order size	MHs	145,180	3,000	3,100	6,100
		<u>\$ 297,451</u>			

The unit product cost of Product O6 is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$637.15 per unit
- B) \$896.71 per unit
- C) \$721.00 per unit
- D) \$661.45 per unit

Answer: B

Explanation: Computation of activity rates:

Activity Cost Pools	(a) Estimated Overhead Cost	(b) Total Expected Activity	(a) ÷ (b) Activity Rate
Labor-related	\$ 133,770	9,800 DLHs	\$ 13.65 per DLH
Production orders	\$ 18,501	700 orders	\$ 26.43 per order
Order size	\$ 145,180	6,100 MHs	\$ 23.80 per MH

Computation of the overhead cost per unit under activity-based costing.

Activity Cost Pools and Activity Rates	Product O6	
	Expected Activity	Amount
Labor-related, at \$13.65 per DLH	1,800	\$ 24,570
Production orders, at \$26.43 per order	400	10,572
Order size, \$23.80 per MH	3,000	<u>71,400</u>
Total overhead costs assigned (a)		<u>\$ 106,542</u>
Number of units produced (b)		200
Overhead cost per unit (a) ÷ (b)		\$ 532.71

Computation of unit product costs under activity-based costing.

	Product O6
Direct materials	\$ 206.50
Direct labor (9.0 DLHs × \$17.50 per DLH)	157.50
Overhead	<u>532.71</u>
Unit product cost	<u>\$ 896.71</u>

23) Roca, Inc., manufactures and sells two products: Product M6 and Product X7. The company has an activity-based costing system with the following activity cost pools, activity measures, and expected activity:

Roca, Inc. ، تصنع وتبيع منتجين: المنتج M6 والمنتج X7. تمتلك الشركة نظامًا لتقدير التكاليف على أساس النشاط مع مجموعات تكلفة النشاط التالية ومقاييس النشاط والنشاط المتوقع:

Activity Cost Pools	Activity Measures	Estimated Overhead Cost	Expected Activity		
			Product M6	Product X7	Total
Labor-related	DLHs	\$ 152,100	3,000	4,800	7,800
Production orders	Orders	63,035	400	300	700

Order size	MHs	<u>505,452</u>	3,700	3,600	7,300
		<u>\$ 720,587</u>			

The total overhead applied to Product X7 under activity-based costing is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$360,294
- B) \$249,264
- C) \$443,424
- D) \$369,879

Answer: D

Explanation: Computation of activity rates:

Activity Cost Pools	(a) Estimated Overhead Cost	(b) Total Expected Activity	(a) ÷ (b) Activity Rate
Labor-related	\$ 152,100	7,800 DLHs	\$ 19.50 per DLH
Production orders	\$ 63,035	700 orders	\$ 90.05 per order
Order size	\$ 505,452	7,300 MHs	\$ 69.24 per MH

Computation of the overhead cost under activity-based costing.

	Product X7 Expected	
Activity Cost Pools and Activity Rates	Activity	Amount
Labor-related, at \$19.50 per DLH	4,800	\$ 93,600
Production orders, at \$90.05 per order	300	27,015
Order size, \$69.24 per MH	3,600	<u>249,264</u>
Total overhead costs assigned		<u>\$ 369,879</u>

24) Ravelo Corporation has provided the following data from its activity-based costing system:

قدمت شركة Ravelo Corporation البيانات التالية من نظام تقدير التكاليف على أساس النشاط:

Activity Cost Pools	Estimated Overhead Cost	Expected Activity
Assembly	\$ 498,520	44,000 machine-hours
Processing orders	\$ 54,263	1,100 orders
Inspection	\$ 77,589	1,110 inspection-hours

Data concerning the company's product L19B appear below:

Annual unit production and sales	430
Annual machine-hours	990
Annual number of orders	70
Annual inspection hours	20
Direct materials cost	\$ 37.74 per unit
Direct labor cost	\$ 10.45 per unit

According to the activity-based costing system, the unit product cost of product L19B is closest to: **(Round your intermediate calculations to 2 decimal places.)**

- A) \$48.19 per unit
- B) \$82.31 per unit
- C) \$85.56 per unit
- D) \$77.53 per unit

Answer: C

Explanation: The activity rates for each activity cost pool are computed as follows:

Activity Cost Pools	(a) Estimated Overhead Cost	(b) Total Expected Activity	(a) ÷ (b) Activity Rate
Assembly	\$ 498,520	44,000 machine-hours	\$ 11.33 per machine-hour
Processing orders	\$ 54,263	1,100 orders	\$ 49.33 per order
Inspection	\$ 77,589	1,110 inspection-hours	\$ 69.90 per inspection-hour

The overhead cost charged to Product L19B is:

Activity Cost Pools	Activity Rates	Expected Activity	Amount
Assembly	\$ 11.33 per machine-hour	990 machine-hours	\$ 11,216.70
Processing orders	\$ 49.33 per order	70 orders	3,453.10
Inspection	\$ 69.90/inspection-hour	20 inspection-hours	<u>1,398.00</u>
Total overhead cost			<u>\$ 16,067.80</u>

Direct materials (430 units × \$37.74 per unit)	\$ 16,228.20
Direct labor (430 units × \$10.45 per unit)	4,493.50
Overhead	<u>16,067.80</u>
Total cost	<u>\$ 36,789.50</u>

Unit product cost = \$36,789.50 ÷ 430 units = \$85.56 per unit

