Perpetual inventory system.

Note: the examples used in these illustrations do not account for adjustments made to inventory valuation through shrinkage etc. They are used solely for the purpose of demonstrating the principle differences between the two systems.

The perpetual inventory system is typically used in the retail sector where the cost of the product can easily be identified through technology such as bar coding. In its simplest form, as a product is sold, the inventory is deducted from stock at which time the income statement is updated with the Cost of Goods. When examining illustration #1, you will see that gross profit and net profit can accurately be determined each month since the cost of goods sold is known. If any adjustments to the value of the inventory is required, it can be determined from time to time and certainly at the end of the fiscal period.
The **periodic inventory system** is different since it is not known exactly how much inventory is used when a sale is made. An example includes the restaurant industry. While the cost of a burger might be known in theory, the exact amount of waste or theft is not known until the inventory is counted. Refer to illustration #2.

If a restaurant sold $6,000 worth of food in January, and had operating expenses of $1,000 the net profit is unknown because the amount of food used is unknown and will remain so until the inventory is counted. The illustration demonstrates the same scenario for January February and March. In March the inventory is counted and the cost of goods sold is calculated as follows:

- Commencing with the opening inventory value of $20,000
- PLUS $10,000 inventory that was purchased for the three month period
- LESS $18,000 being the value of the inventory in the restaurant at the end of March
- Equals $12,000 which represents the amount used and recorded in the income statement as the Cost of Goods Sold

Illustration #3 demonstrates this concept.
Reporting the cost of goods sold:

When using a perpetual inventory system, all the inventory activity is recorded in the inventory account and only the Cost of Goods Sold is recorded on the income statement. Intuitively, one would think that the same principle should apply when recording inventory activity in a periodic system. In fact, there is no logical reason why all the activity should not be recorded as per illustration #3. Over the years however accountants have deemed it more appropriate to record the activity on the income statement instead of the balance sheet. It actually makes no difference to the manner in which it is calculated. The method of calculating the inventory however is the same. Examine illustration #4 below.

So in fact, when a business using the periodic inventory system reports the gross profit each month, the accuracy of the gross profit is questionable since the value of the inventory has not been determined. Example:

The value of inventory in a restaurant is quite consistent from month to month especially since they are working with perishable products. The gross profit each month should be reasonably accurate. Once the inventory is counted at the end of the month, the correct adjustment can be made to correct the gross profit. In larger industries such as manufacturing where the cost and task of counting inventory is significant, inventory is typically counted only once a year resulting in inaccurate gross profit reporting on a monthly basis.

When comparing the perpetual to the periodic inventory system, both systems will produce the same gross profit at the end of the period. It’s just a question of timing.