

Gen Math - Measurement Worksheet



1. The capacity of a bottle is measured as 1.25 litres correct to the nearest 10 millilitres. What is the percentage error for this measurement?
2. An alcoholic drink has 5.5% alcohol by volume. The label on a 375 mL bottle says it contains 1.6 standard drinks. (i) How many millilitres of alcohol are in a 375 mL bottle? (ii) If it is recommended that a fully-licensed driver should have a maximum of one standard drink every hour. Express the 'one drink maximum' as a rate in millilitres per minute, correct to one decimal place.
3. The mass of a sample of microbes is 50 mg. There are approximately 2.5×10^6 microbes in the sample. In scientific notation, what is the approximate mass in grams of one microbe?
4. Bob is employed as a salesman. He is offered two methods of calculating his income.

Method 1	Commission only of 13% on all sales_
Method 2	\$350 per week plus a commission of 4.5% on all sales

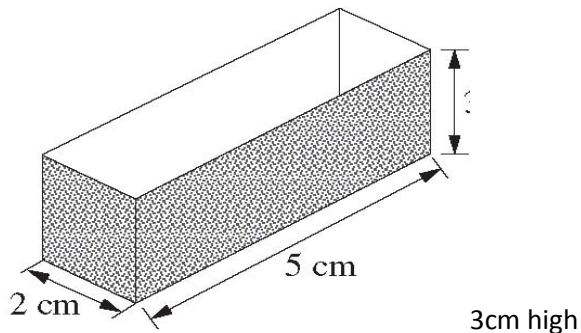
Bob's research determines that the monthly average sales total per employee is \$15670.

- (i) Based on his research, how much could Bob expect to earn in a year if he were to choose Method 1?
 - (ii) If Bob were to choose a method of payment based on the average sales figures, state which method he should choose in order to earn the greater income. Justify your answer with appropriate calculations.
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5. The three sides of a triangle are 6, 7, and 8. What is the size of the smallest angle in this triangle?
 - (A) 29°
 - (B) 47°
 - (C) 58°
 - (D) 76°

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6. The height above the ground, in meters, of a person's eyes varies directly with the square of the distance, in kilometres, that the person can see to the horizon. A person whose eyes are 1.6 m above the ground can see 4.5 km out to sea. How high above the ground, in meters, would a person's eyes need to be to see an island that is 15 km out to sea? Give your answer correct to one decimal place.
7. What is the surface area of the open box?



8. Luke's normal rate of pay is \$15 per hour. Last week he was paid for 12 hours, at time-and-a-half. How many hours would Luke need to work this week, at double time, to earn the same amount?
- (A) 4
(B) 6
(C) 8
(D) 9

9. The floor of a shower (bath room) is 1 meter long and 1 meter width. The drain in the floor is a circle with a diameter of 10cm. What is the area of the shower floor, excluding the drain?

9686 cm²

9921 cm²

9969 cm²

10000 cm²

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10. A bacteria multiply every minute. If initially there are 10^4 number of bacteria, what will be the number after 6 minutes?

- A. $2(10^4)$
- B. $6(10^4)$
- C. $(2^6)(10^4)$
- D. $(10^6)10^4$
- E. $(10^4)^6$