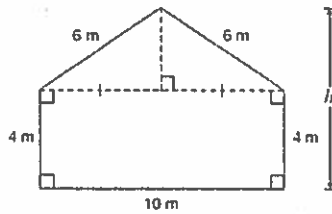**EQAO Multiple Choice Practice**

Select the best answer in each case.

1. The diagram below represents the front view of a house.

Which is closest to the height, h, of the house?

   a) 3 m

   b) 7 m

   c) 10 m

   d) 12 m

2. The formula for the volume of a cylinder is $V = \pi r^2 h$, where r is the radius and h is the height. A cylinder has a radius of 3 cm and a height of 10 cm.
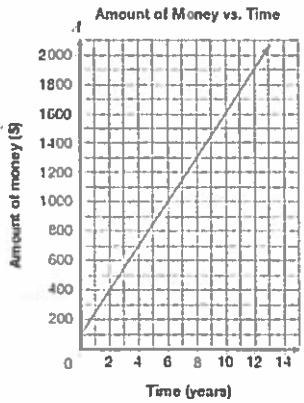   Which of the following is closest to the volume of the cylinder?

   a) 188 cm^3

   b) 283 cm^3

   c) 888 cm^3

   d) 8882 cm^3

3. A formula for the relationship between a person's maximum heart rate, H, and the person's age, a, is shown below.

$$H = 217 - 0.85a$$

   According to the formula, which of the following is closest to Jasmin's maximum heart rate if she is 14 years old?
   a) 203

   b) 205

   c) 229

   d) 239

4. Halyna starts with $50 in her bank account, and she spends $3 per day from it. Compared to Halyna,

   Manny starts with $5 more in his account and spends $1 more each day.

   Which of the following equations represents the amount of money remaining in Manny's account, A, at the end of each day, d?

   a) $A = 51d$

   b) $A = 59d$

   c) $A = 55 - 9d$

   d) $A = 55 - 4d$

5. A graph representing the relationship between the amount of money in a bank account and time, in years, is shown below.

Amount of Money vs. Time

What is the rate of change for this relationship?

a) $200 per year

b) $160 per year

c) $150 per year

d) $100 per year

6. The cost, C, in dollars, of a pizza with n toppings is represented by the equation $C = 2n + 5$.

Which of the following statements is true?

a) The base cost of the pizza is $2, and the cost per topping is $5.

b) The base cost of the pizza is $5, and the cost per topping is $2.

c) The base cost of the pizza is $7, and the cost per topping is $2.

d) The base cost of the pizza is $7, and the cost per topping is $5.

7. Data in the table below is from a linear relationship.

n	C
2	10
4	16
6	22
8	
10	
12	

What is the value of C when $n = 10$?

a) 24

b) 28

c) 34

d) 40

8. A movie-rental club charges a membership fee and a cost for each movie rented. The table of values shows total costs for renting movies.
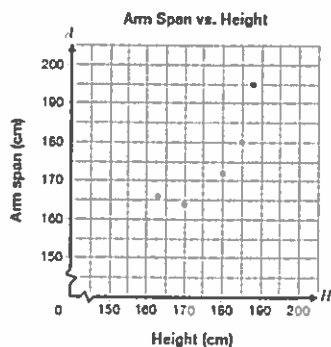
Number of movies, n	Total cost, C ($)
1	12
2	14
3	16
4	18

Which of the following equations correctly represents this relationship?

   a) $C = 4n + 8$

   b) $C = 4n + 12$

   c) $C = 2n + 10$

   d) $C = 2n + 12$

9. Carla belongs to a movie subscription service. Her total monthly cost consists of a $16 fee and $1.50 per movie viewed. Susan's total monthly cost for a different movie subscription service has a fee that is $4 less than Carla's, but the cost per movie viewed is the same.

Which of the following represents Susan's total monthly cost, C, in dollars, where n is the number of movies viewed?

   a) $C = 20 + 1.5n$

   b) $C = 12 + 1.5n$

   c) $C = 13.5n$

   d) $C = 12n$

10. Five students plot their arm span and height on the graph below.

Arm Span vs. Height

Which of the following describes one of these 5 students?

   a) height: 166 cm; arm span: 162 cm

   b) height: 170 cm; arm span: 164 cm

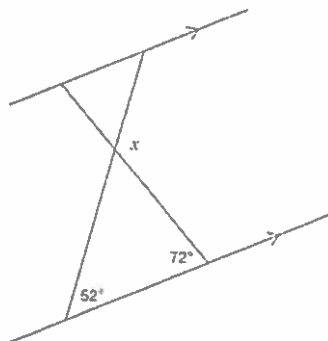   c) height: 180 cm; arm span: 165 cm

   d) height: 195 cm; arm span: 188 cm

11. The ratio of the width to the height of a television screen is 16:9. If the height of the screen is 52 cm, which is closest to the width?

a) 92 cm

b) 87 cm

c) 59 cm

d) 29 cm

12. A store gives reward points for every dollar spent. The number of reward points varies directly with the total amount spent. Sofia spends $300 and receives 15 reward points. Juan spends $900. He receives reward points at the same rate as Sofia.
How many **more** reward points will Juan receive than Sofia?

a) 20

b) 30

c) 60

d) 90

13. Each year, a school sends 50 students to a conference. Last year, the cost was $12.50 per student. This year, the cost per student has increased by 16%.
What is the total cost to send 50 students to the conference this year?

a) $625

b) $633

c) $725

d) $841

14. What is the value of y in the diagram below?

a 65°
b 75°
c 78°
d 102°

15. What is the value of x in the diagram below?

a 56°
b 72°
c 108°
d 124°