

Section I (No Calculator)

MCQs

20 x 2 = 40

For each of the questions below, choose the best answer from the four choices given.

1. Each member of Mark's school band sold the same number of tickets to their concert. Altogether the members of the school band sold a total of 442 tickets. There are 34 members of the band. To determine the number of tickets each member sold, Mark used the model shown.

$442 \div 34$		10	10	10	1	1	1	1
?		100	100	100	10	10	10	10
		10	10	10	1	1	1	1
		10	10	10	1	1	1	1
		10	10	10	1	1	1	1

How many tickets did each member of Mark's school band sell?

- A. 13 tickets
 - B. 34 tickets
 - C. 408 tickets
 - D. 440 tickets
2. A theater collected \$6 for each ticket sold to a movie. The theater sold 500 tickets to the movie. The expression below can be used to find how much money the theater collected for the tickets.

$$6 \times 500$$

Which expression can also be used to find how much money the theater collected for the tickets?

- A. 30×10^1
- B. 30×10^3
- C. $(6 \times 5) \times 10^2$
- D. $(6 \times 5) \times 10^3$

3. There are 2,817 homes in the town of West Valley. Each home uses an average of 380 gallons of water each day. Use the expression below to find the total number of gallons of water the homes in West Valley use on average each day.

$$2,817 \times 380$$

What is the total number of gallons of water the homes in West Valley use on average each day?

- A. 860,460 gallons
B. 870,460 gallons
C. 1,060,460 gallons
D. 1,070,460 gallons
4. The schedule for a music showcase includes 3 sets that are 20 minutes each and 1 set that is 40 minutes. There is a 10-minute break between each set. The total length of the music showcase is $3(20 + 10) + 40$ minutes. What is the total length of the music showcase?
- A. 73 minutes
B. 110 minutes
C. 130 minutes
D. 210 minutes
5. Carole used $3\frac{3}{4}$ cups of butter for baking. The amount of sugar she used was $\frac{1}{3}$ of the amount of butter she used. How much sugar, in cups, did she use?
- A. $1\frac{1}{4}$ cups
B. $1\frac{1}{3}$ cups
C. $2\frac{1}{2}$ cups
D. $3\frac{5}{12}$ cups

6. A store sells 107 different colors of paint. They have 25 cans of each color in storage. The number of cans of paint the store has in storage can be found using the expression below.

$$107 \times 25$$

How many cans of paint does the store have in storage?

- A. 749
B. 2,675
C. 2,945
D. 4,250
7. Yala brought $\frac{5}{9}$ of a pound of cherries to school. Will brought $\frac{4}{15}$ of a pound of cherries to school. Yala used the expression below to find the difference in the number of pounds of cherries she and Will brought to school.

$$\frac{5}{9} - \frac{4}{15}$$

Which expression shows one way to solve the expression Yala used above?

- A. $\frac{5-4}{9-15}$
B. $\frac{5-4}{9 \times 15}$
C. $\frac{11}{15} - \frac{4}{15}$
D. $\frac{25}{45} - \frac{12}{45}$

8. At a football game, $\frac{8}{15}$ of the fans wore team T-shirts. Of those wearing team T-shirts, $\frac{1}{4}$ also wore team hats. What fraction of the fans at the football game wore both a team T-shirt and a team hat?

- A. $\frac{2}{15}$
- B. $\frac{9}{19}$
- C. $\frac{7}{11}$
- D. $\frac{47}{60}$

9. $2\frac{3}{8} + \frac{13}{20}$

- A. $2\frac{16}{28}$
- B. $2\frac{128}{160}$
- C. $3\frac{1}{40}$
- D. $3\frac{41}{40}$

10. Use the expression below to answer the question.

$$3 \times [(2 \times 6 - 5) + (8 \div 4)] - 1$$

What is the value of the expression?

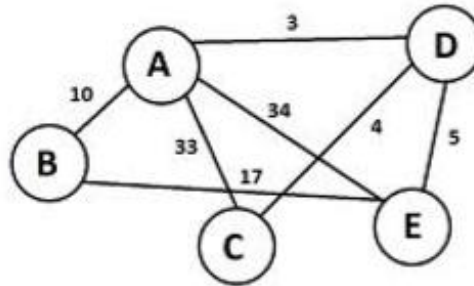
- A. 9
- B. 11
- C. 26
- D. 32

11. Thomas walked 3km on Monday, 6km on Tuesday, and 9km on Wednesday. If this pattern continues

How far will he walk on Friday?

- A. 15 km
 - B. 3 km
 - C. 54 km
 - D. 9 km
12. If $a = -3$ then what is the value of $a(3 - 5) + 2$
- A. 8
 - B. -4
 - C. 4
 - D. -8
13. For the equation $(5a - 1) = 9$, a is
- A. A variable
 - B. An expression
 - C. A coefficient
 - D. An operator
14. Which of the following is a closed sentence?
- A. A is less than 3
 - B. A square has X sides
 - C. $4 + y = 20$
 - D. $D + D + D = 3D$
15. Canasta is a card game where at the end of each hand points are either added or deducted from a player's score. Players' scores start at zero. In the first hand Tom lost 25 points, and in the second he lost 15. What was his score after 2 hands?
- A. -40
 - B. 40
 - C. -10
 - D. 10

16.



The diagram shows the shortest distance between any two points

Along which path or paths is the shortest distance from A to E

- A. A to C to E
- B. E to D to E
- C. A to B to E
- D. A to E

17. What are the next two numbers of the following series

2 , 6, 14 , _____ , _____

- A. 16, 32
- B. 32, 64
- C. 16,24
- D. 30,62

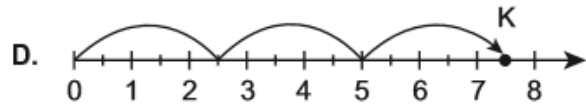
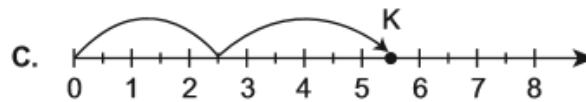
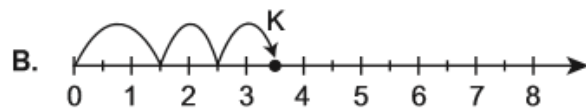
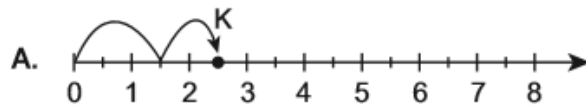
18. How to write 597 in words?

- A. Fifty nine seven
- B. Fitty hundred and ninety seven
- C. Five hundred and ninety seven
- D. Five thousand and ninety seven

19. Sara poured $1\frac{1}{8}$ cups of lemonade into each of 5 glasses. What was the total amount of lemonade Sara poured into the 5 glasses?

- A. $3\frac{7}{8}$ cups
- B. $5\frac{1}{8}$ cups
- C. $5\frac{5}{8}$ cups
- D. $6\frac{1}{8}$ cups

20. Kara went running 3 times this week. Each time, she ran 2.5 miles. Which number line has point K graphed so that it **best** represents the total distance Kara ran, in miles?



Section II

Attempt the following questions. All questions carry equal marks.

10 x 2 = 20

1. Solve this equation

$$6C = 42$$

2. List the factors of the number 12

3. In a mathematics test Tom got $\frac{1}{4}$ of the questions wrong, and Alan got $\frac{1}{3}$ of the questions wrong. Who did better on the test?

4. Solve: $751.64 - 384.3545$

5. Convert $\frac{1}{4}$ to decimal.

6. Convert 0.25 to fraction.

7. Find the average of 125 , 145 , 80 , 124 , 102 , 144

8. Calculate $40 \times \frac{1}{2}$

9. Tom had \$15.20, whilst Alan had ten times as much. How much money did Alan have?

10. A hotdog costs \$4.65 after midnight in the store from question 10. How much does it cost before midnight

Section III

Attempt the following questions. All questions carry equal marks.

10 x 4 = 40

- 1. The chart is partially filled with product. Complete the chart by finding the product.**

X	6	7	8	9
6			48	
7		49		
8	48			

- 2. Simplify $75 \div 5 \times 9$**

- 3** The schedule for a music showcase includes 3 sets that are 20 minutes each and 1 set that is 40 minutes. There is a 10-minute break between each set. The total length of the music showcase is $3(20 + 10) + 40$ minutes. What is the total length of the music showcase?

4. Nick is making two different types of bread. He needs $3\frac{2}{3}$ cups of flour for one type and $5\frac{3}{4}$ cups of flour for the other type. The total amount of flour, in cups, Nick will need to make both types of bread can be found by solving the expression below.

$$3\frac{2}{3} + 5\frac{3}{4}$$

How many cups of flour will Nick need to make both types of bread?

5. Factor the following numbers to their prime factors.

<p style="text-align: center;">a. 26</p> <p style="text-align: center;">/\</p>	<p style="text-align: center;">b. 40</p> <p style="text-align: center;">/\</p>
---	---

6. A website charges a fixed amount for each song download. If you can download six songs for \$4.68, then how much would it cost to download ten songs?

7. Complete

b. $0.28 + \underline{\hspace{2cm}} = 1$	c. $0.82 - 0.2 = \underline{\hspace{2cm}}$
e. $0.25 + 0.8 = \underline{\hspace{2cm}}$	f. $\underline{\hspace{2cm}} - 0.2 = 0.17$

8. . Compare the fractions, and write $<$, $>$, or $=$ in the box.

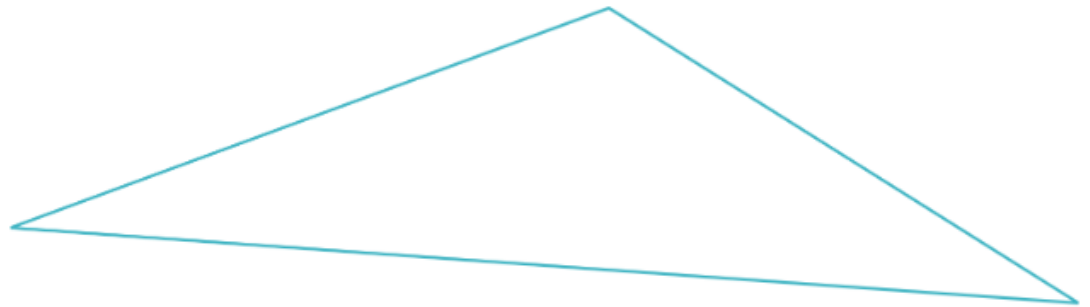
a. $\frac{6}{9} \square \frac{6}{13}$

b. $\frac{6}{13} \square \frac{1}{2}$

c. $\frac{5}{10} \square \frac{48}{100}$

d. $\frac{1}{4} \square \frac{25}{100}$

9. Measure the sides of the triangle in inches. Find its perimeter.



10. This is a rectangular prism.
Find its volume.

