

## Part A: Selected Response:

Name: key

Place the best answer in the table provided.

[10 marks]

1. What percentage of the square is shaded?

- A) 5%  
B) 15%  
C) 20%  
D) 80%



$$\frac{5 \times 4}{25 \times 4} = \frac{20}{100} = 20\%$$

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

2. For the problem below, which operation will be done
- first
- ?

$$32 \times (12 + 3.4) - 6.6 \div 0.5$$

- A) +  
B) -  
C) x  
D) ÷

3. Sally had 32 out of 45 on her math test. What percent grade did she receive?

- A) 7%  
B) 32%  
C) 64%  
D) 71%

$$\frac{32}{45} \rightarrow 32 \div 45 = 0.71 = 71\%$$

4. What is 5% as a decimal?

- A) 0.05  
B) 0.5  
C) 5  
D) 50

5. Which fraction is the same as 15%?

- A)  $\frac{1}{15}$   
B)  $\frac{1}{7}$   
C)  $\frac{3}{20}$   
D)  $\frac{15}{50}$

$$\frac{15 \div 5}{100 \div 5} = \frac{3}{20}$$

6. What is 25% of \$300?

- A) \$7.50
- B) \$25
- C) \$75
- D) \$150

$$0.25 \times 300 = 75$$

7. There are 30 students in Sally's class. Out of these students 70% love math class. How many of the students love math class?

- A) 7
- B) 9
- C) 21
- D) 30

$$70\% \text{ of } 30$$

$$0.70 \times 30$$

$$21$$

8. There are 40 dogs at the pet-care center. If 35% of the dogs are brown, how many of the dogs are brown?

- A) 5
- B) 14
- C) 26
- D) 75

$$35\% \text{ of } 40$$

$$0.35 \times 40$$

$$14$$

9. Sam's treats his friends to a meal. The bill is \$84.25. If Sam tips 18%, how much of a tip does he leave?

- A) \$1.52
- B) \$15.17
- C) \$18.00
- D) \$23.14

$$18\% \text{ of } \$84.25$$

$$0.18 \times 84.25$$

$$\$15.165$$

10. Sonny orders 25 cupcakes for her birthday party. 10 are chocolate and 15 are vanilla. What percentage of the cupcakes are vanilla flavor?

- A) 15%
- B) 40%
- C) 60%
- D) 75%

$$\frac{15 \times 4}{25 \times 4} = \frac{60}{100}$$

**Constructed Response: Show all workings to achieve full marks (25 marks)**

11. Evaluate. Show ALL workings (step by step).

$$[6] \begin{array}{r} 1.40 \\ + 1.08 \\ \hline 2.48 \end{array}$$

$$\begin{array}{r} 4.1 \\ 7 \overline{)28.7} \\ \underline{-28} \phantom{0} \\ 07 \\ \underline{-7} \\ 0 \end{array}$$

A)  $1.6 + 2.87 \div 0.7 - 2.8$

B)  $3.6 - 0.2 \times (1.4 + 1.08)$

$$= \underline{1.6 + 4.1} - 2.8$$

$$= \underline{3.6 - 0.2 \times 2.48}$$

$$\begin{array}{r} 2.48 \\ \times 2 \\ \hline 496 \end{array}$$

$$= \underline{5.7 - 2.8}$$

$$= \underline{3.6 - 0.496}$$

$$\begin{array}{r} 591 \\ 3.600 \\ - 0.496 \\ \hline 3.104 \end{array}$$

$$= \underline{2.9}$$

$$= \underline{3.104}$$

$$\begin{array}{r} 1.6 \\ + 4.1 \\ \hline 5.7 \end{array}$$

12. Complete the table.

[6]

$$\begin{array}{r} 48.7 \\ - 2.8 \\ \hline 2.9 \end{array}$$

Decimal	Percent	Fraction
0.35	35%	$\frac{35 \div 5}{100 \div 5} = \frac{7}{20}$
0.83	83%	$\frac{83}{100}$
0.16	16.6%	$\frac{1}{6}$

$$\begin{array}{r} 0.16 \\ 6 \overline{)1.00} \\ \underline{-0} \phantom{0} \\ 10 \\ \underline{-6} \\ 40 \\ \underline{-36} \\ 4 \end{array}$$

13. Sindy got 4 out of every 5 questions right on her English test. She received  $\frac{65}{80}$  on her Math test. On which test did she receive the better mark. Show how you know. [2]

$$\text{English: } \frac{4}{5} = \frac{8}{10} = 0.8 = 80\%$$

$$\text{Math: } \frac{65}{80} \rightarrow 65 \div 80 = 0.8125 = 81.25\%$$

She received a better mark on her math.

$$\begin{array}{r} 8 \\ 4 \overline{) 32} \\ \underline{-32} \\ 0 \end{array}$$

14. Sean completed a question on his math test. He did not receive full marks because he made ONE mistake. Evaluate the answer correctly and explain where Sean went wrong.

$$12.7 - 3.2 \div 0.4 + 6.1$$

Sean did not follow the correct order of operations. He should have divided before subtraction.

$$\begin{aligned} &= 9.5 + 0.4 + 6.1 \\ &= 23.75 + 6.1 \\ &= 29.85 \end{aligned}$$

Correct Solution

[3]

$$\begin{aligned} &= 12.7 - 8 + 6.1 \\ &= 4.7 + 6.1 \\ &= 10.8 \end{aligned}$$

$$\begin{array}{r} 4.7 \\ + 6.1 \\ \hline 10.8 \end{array}$$

$$\begin{array}{r} 12.7 \\ - 8.0 \\ \hline 4.7 \end{array}$$

Explanation: \_\_\_\_\_

[1]

15. a) The cost of a PS4 Playstation Bundle is \$429. Tomorrow it will be on sale for 22% off. What is the sale price? [2]

$$\begin{aligned} \text{Discount is } 22\% \text{ of } \$429 \\ \text{Discount} &= 0.22 \times 429 \\ &= 94.38 \end{aligned}$$

$$\begin{aligned} \text{Sale Price} &= 429 - 94.38 \\ &= \$334.62 \end{aligned}$$

Sale Price is \$334.62

- b) If tax is 13%, how much will Sally have to pay in total? [2]

$$\begin{aligned} \text{Tax is } 13\% \text{ of } \$334.62 \\ \text{Tax} &= 0.13 \times 334.62 \\ &= \$43.50 \end{aligned}$$

$$\begin{array}{r} \text{Total Cost} = 334.62 \\ + 43.50 \\ \hline \$ 378.12 \end{array}$$

Total cost is \$378.12