



Year 8

End of Semester Exams

December 2018

Practice Questions

1. Work out these

a. $4828 + 187$

b. $4828 - 187$

c. $666 + 2172 - 35$

d. $778 + 24 - 77$

e. $7625 - 84 + 555$

f. $12004 + 804 - 9963$

2. In 2013, Tariq earned £ 18222 plus bonus of £ 839.
His employer deducted £ 4722 for tax, insurance and pension.
How much did Tariq receive?

3. Work out the following by using column method.

a. $17.7 + 0.73$

b. $28.9 + 7.83$

c. $37.94 - 1.3$

d. $48.3 - 5.14$

e. $5.4 + 33.7 - 0.85$

f. $45.2 - 7.8 - 0.84$

4. Do the following calculations.

a. 5×32

b. 26×5

c. 4.5×6

d. 2.5×16

e. 24×16

f. 24×3.5

5. Work out these

a. $10 + -5 = \dots\dots\dots$

b. $6 - -4 = \dots\dots\dots$

c. $-8 \times = 3 = \dots\dots\dots$

d. $-4 \times 3 = \dots\dots\dots$

e. $3 \times -2 \times 4 = \dots\dots\dots$

f. $-2 \times 5 \times -7 = \dots\dots\dots$

g. $-3 \times -4 + -2 = \dots\dots\dots$

6. Work out the following calculations

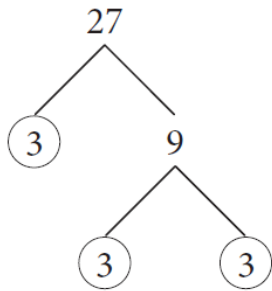
a. $5 - 2 \times 7 = \dots\dots\dots$

b. $5 \times -3 \times -2 = \dots\dots\dots$

c. $-10 \div 2 + 3 = \dots\dots\dots$

d. $-15 \div (5 - 8) = \dots\dots\dots$

7. Find the prime factors of the following numbers as shown in the example.



$27 = 3 \times 3 \times 3$

a. 50	b. 56	c. 90
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8. Find the LCM and HCF of the following pair of numbers by using Venn diagram.

<p>a. 16, 12</p> <p>$16 = 2 \times 2 \times 2 \times 2$ $12 = 2 \times 2 \times 3$</p> <p>HCF = LCM =</p>	b. 30, 24
c. 9, 27	d. 30, 70

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9. Simplify the following;

- a. $e + e + e + e$
- b. $7m + 6m - 2m$
- c. $8e + 2f - 11e + 3f$
- d. $4y + 2y - 5y$
- e. $5 \times 3x$
- f. $b \times b \times b \times b$
- g. $3b - b$
- h. $b + 2 + 2b + 7$
- i. $-2(a - 5)$
- j. $-3(4 + 2x)$
- k. $-a(2 - a)$

10. Factorize the followings;

- a. $4c - 10 =$
- b. $6m - 6 =$
- c. $7d - 7 =$
- d. $2m - 2 =$
- e. $3a - 15a =$
- f. $5k - 15k =$
- g. $6a - 18 =$
- h. $8c + 12d =$
- i. $27p - 18 =$
- j. $20m - 100 =$
- k. $m - 3m^2 =$
- l. $x - 2x^2 =$
- m. $12\pi - 9\pi^2 =$
- n. $X^2 - x =$
- o. $6d^2 - 18d =$

p. $16j - 24j = \dots\dots\dots$

11. Solve the following equations;

a. $b - 3 = 5$	b. $a + 5 = 7$	c. $d - 11 = 2$
d. $\frac{m}{2} = 5$	e. $\frac{a}{3} = 7$	f. $\frac{n}{2} = 10$
g. $2d + 3d = 20$	h. $2 \times 5a = 60$	i. $2e + 2e + 4e = 16$
j. $4a - 10 = 30$	k. $10 = 2d - 4$	l. $2w + 10 = 2$
m. $-2a + 8 = 20$	n. $4 + 3k = 28$	o. $14 = 3m - 1$
p. $6x = 3x + 6$	q. $7u = 2u + 20$	r. $6m + 4 = 5m + 12$
s. $5c + 14 = 8c + 1$	t. $10x - 2 = 4(x + 7)$	u. $2(3p + 1) = 5(p + 2)$

12. Area of 2D Multiple Choice Questions

a. Area of square

- b. $A = l + b$
- c. $A = l \times w$
- d. $A = s \times s$
- e. $A = s + s$

b. Area of rectangle

- a. $A = l + b$
- b. $A = l \times w$
- c. $A = s \times s$
- d. $A = s + s$

c. Area of rectangle when length is 6 cm and width is 9 cm

- a. $A = 15 \text{ cm}^2$
- b. $A = 56 \text{ cm}^2$
- c. $A = 30 \text{ cm}^2$
- d. $A = 54 \text{ cm}^2$

d. Area of triangle

- a. $A = \frac{1}{2} bh$
- b. $A = \frac{1}{2} b + h$
- c. $A = \frac{1}{2} + bh$
- d. $A = \frac{1}{2} lw$

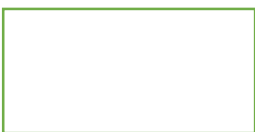
e. The Length of rectangle if area is 250cm^2 and width is 25 cm is

- a. 650cm^2
- b. 10 cm
- c. 10 cm^2
- d. 300cm^2

f. The width of rectangle if area is 30cm^2 and width is 10 cm is

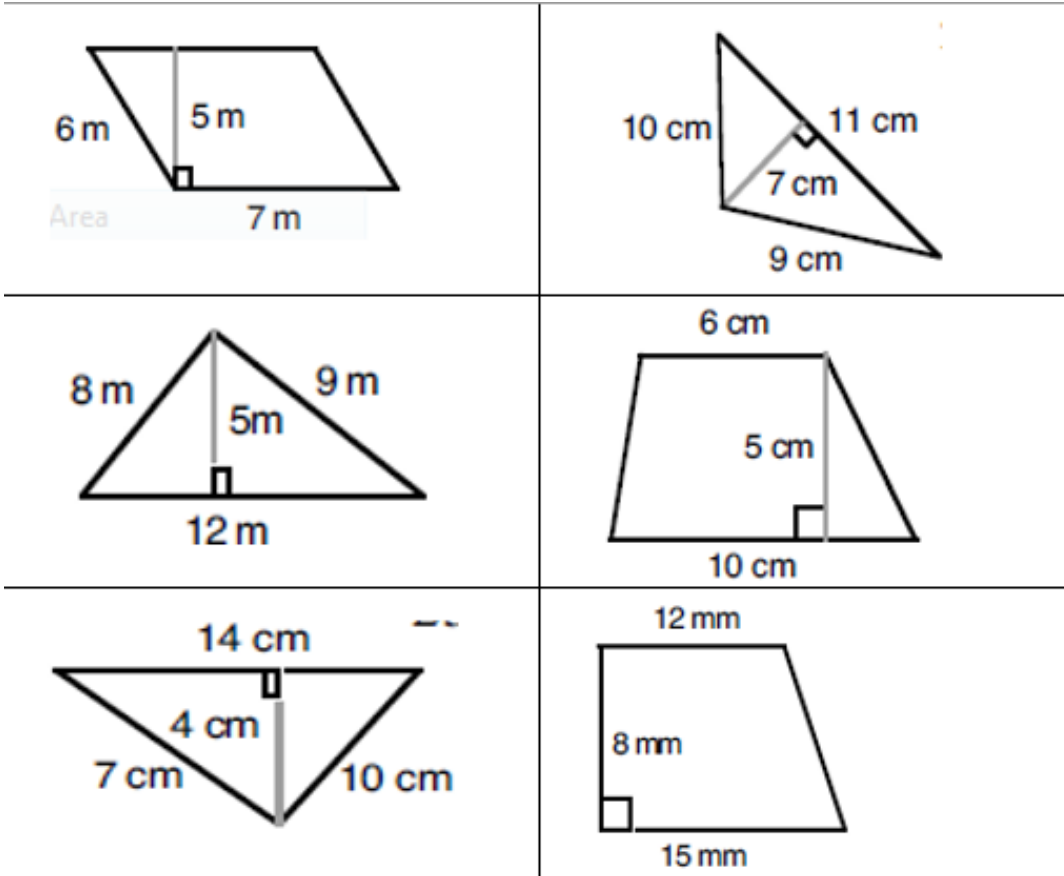
- a. 3 cm^2
- b. 40 cm^2
- c. 300 cm^2
- d. 3000cm^2

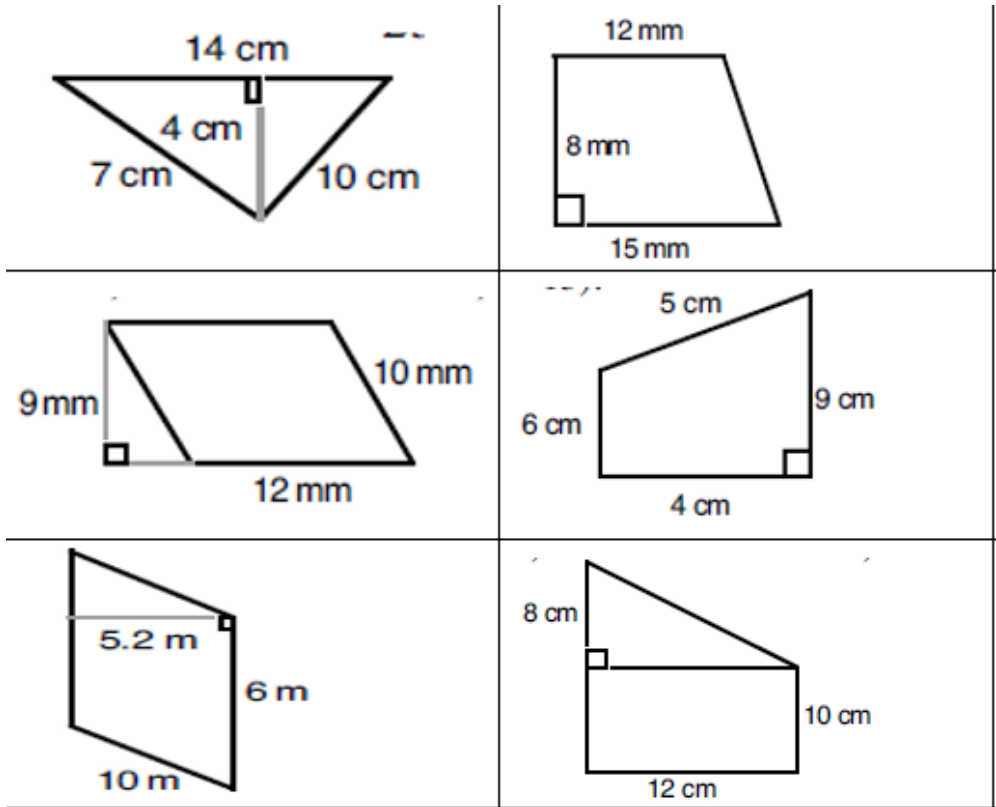
g. Choose the formula to calculate the area of given shape



- a. $A = l + b$
- b. $A = l \times w$
- c. $A = s \times s$
- d. $A = s + s$

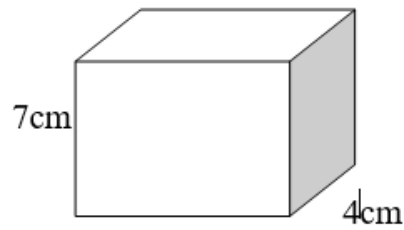
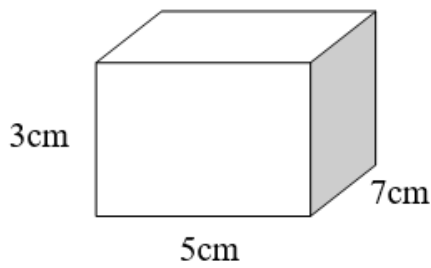
13. Find the area of the following shapes.





14.

Find the surface area of the following cuboids 12cm



15.



a. Find the area of given rectangle in terms of a.

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b. Find the perimeter of given rectangle in terms of a.

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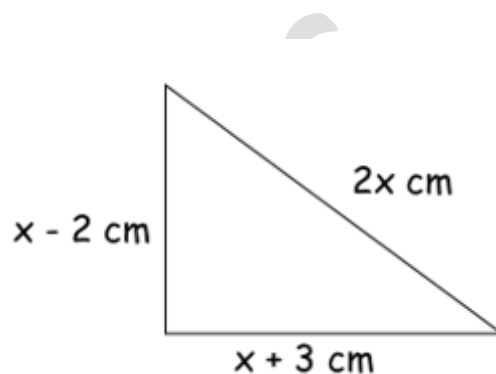
16. Tick the expression that represent the perimeter of given triangle.

a. $3x + 1$

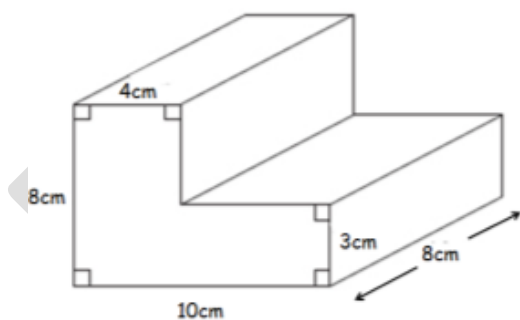
b. $4x + 1$

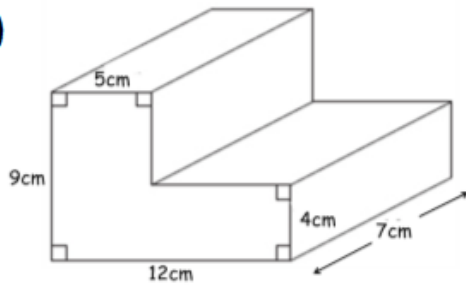
c. $4x - 1$

d. $4x + 5$



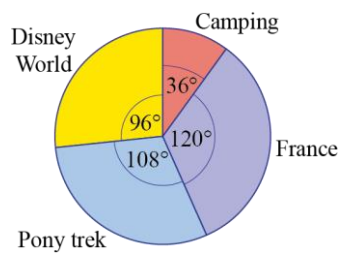
17. Find the volume of the following shapes.





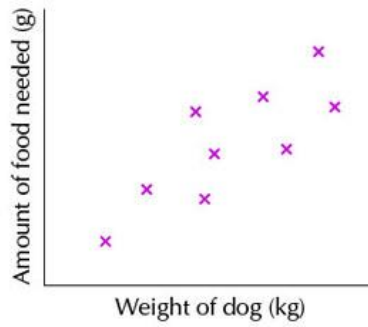
18. The pie chart shows the holiday activities or destinations of 180 children.

- a. How many children went camping?
- b. How many children went FRANCE?



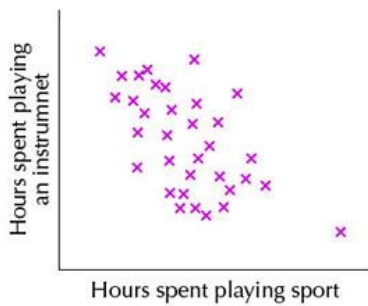
19. What type of correlation does this scatter graph show?

Circle the correct answer.



- A. Positive correlation B Negative correlation C No correlation

20. The members of Class 8H were asked how many hours per week they spend playing an instrument and how many hours per week they spend playing sport. Select the statement below that describes what the graph shows.



- Choice 1) People who spend a lot of time playing sport also spend a lot of time playing an instrument.
- Choice 2) People who spend a lot of time playing sport do not spend a lot of time playing an instrument.
- Choice 3) People who spend a lot of time playing sport may or may not spend a lot of time playing an instrument.

Answer: _____

21. A stem and leaf diagram is drawn for the number of CD's owned by pupils in Mrs Evans' Maths class.

0	0	1	1	2	5	7			
1	2	5	7	8	8	9	9	9	9
2	0	0	4	6	7	8	9		
3	1	1	2	4	9				
4	0								

key 2 | 0 means 20

a. How many pupils are in Mrs Evans' Maths class?

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b. What is the modal number of CD's owned?

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c. Find the median number of CD's owned.

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d. What is the range for the number of CD's owned?

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EOS Practice Qts