

UTS Stage 2 Exam: Sample Questions

Ordering

1. Rewrite the following numbers in the order from smallest to largest:
1.5 1.445 3.1616 1.576 2.84 1.501
2. Rewrite the following numbers in the order from largest to smallest:
 $\frac{7}{3}$ $\frac{4}{3}$ $\frac{25}{13}$ $\frac{7}{4}$ $\frac{10}{7}$ $\frac{1}{5}$

Basic Numerical Operations

3. Calculate the average of the following set of numbers:
6 4 2 0 9 5 6 7
4. Circle the fraction that is closest to $\frac{8}{30}$:
(A) $\frac{2}{3}$ (B) $\frac{1}{3}$ (C) $\frac{6}{5}$ (D) $\frac{3}{4}$ (E) $\frac{5}{6}$ (F) $\frac{1}{2}$
5. Circle all the numbers that are multiples of 4:
42 31 46 60 28 85
92 54 81 72 8 96
6. Janet gave Juan a box of chocolates for Valentines Day. The box including the 8 pieces of chocolates inside weigh a total of 100 grams. The empty box weighs 36 grams. How much does each piece of chocolate weigh?
7. Mrs. Johnson asked her 25 students to write about a plant or an animal. 18 students went to the botanical garden, 13 students went to the zoo, and 5 students didn't go anywhere. How many students went to both the botanical garden and the zoo?

Decimal Operations

Fill in the missing operation:

8. $11.1 \square 2.5 - 6.7 + 1 = 7.9$

9. $27.1 + 5.27 - (11 \square 1.25) = 20.12$

10. $46.66 - 38 \square 5.13 = 13.79$

11. $99 \square (55.6 - 44.7) + 1.12 = 89.22$

12. The Railway Company is building a new railroad between Ottawa and Toronto that is 400km long. The contract is for six month. They built a quarter of the length in the first month. (a) How much railroad do they have left to build? (b) If they were to work at a constant pace after the first month, how much railroad should they build every month, in order to finish the project on time?

13. The basketball team received \$300 dollars to spend on equipments. If half of the total amount was spent on team jerseys, and a third of the total amount was spent on travelling, how much does the team have left to throw a party?

14. Ten years ago, Tom was three times as old as Carrie. Carrie is now 15 years old. How old is Tom?

Patterning

Find the missing term in the sequence:

15. 0, 2, 2, 4, 6, 10, 16, ____

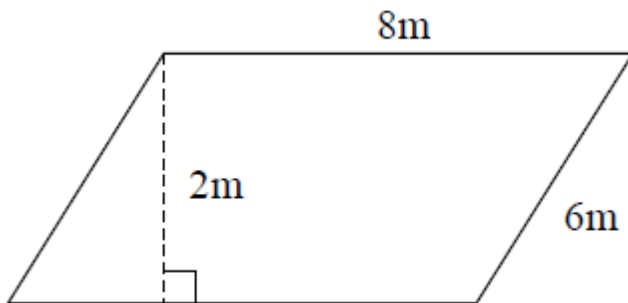
16. 1, ____, 4, 6, 7, 9, 10, 12

17. 99, 98, 96, 93, ____, 84

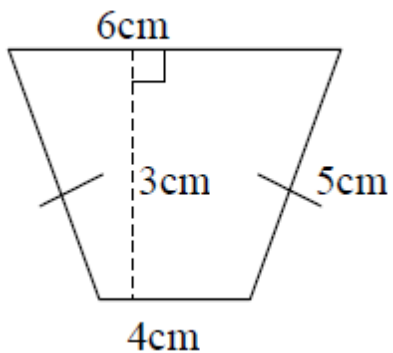
Measurement

Find the perimeter and the area of the following figures:

18.



19.



20. Lakeside High School is renovating the gym by getting a new hardwood floor. The gym is 100 metres long and 40 metres wide. The flooring comes in square blocks with a side length of 5 metres. How many blocks does the school need to purchase?

21. An apple is approximately:

- (A) 100 cm^3 (B) 1 m^3 (C) 1000 mm^3 (D) 10 dm^3 (E) 0.01 km^3

22. If one were to measure a bus, it would make sense to describe it in:

- (A) km (B) hm (C) cm (D) m (E) mm

Geometry and Spatial Sense

For each of the following, state whether or not it folds into a cube.

