

Year 5 Term 3 Homework

Student Name: _____	Grade: _____
Date: _____	Score: _____

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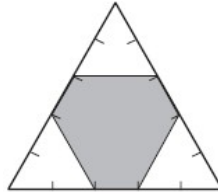
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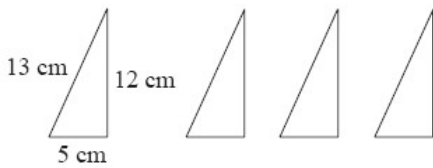
3 Year 5 Term 3 Week 3 Homework

3.1 Topic 1 — 3-D & 2-D Figures

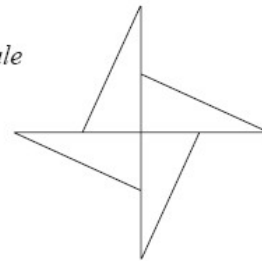
1. What part of the whole unit is shaded? Write your answer in its lowest fraction form.



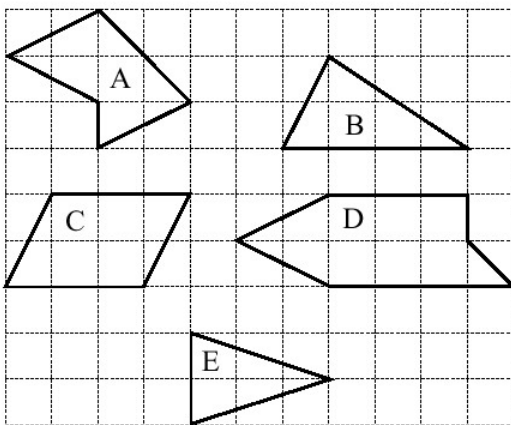
2. Jessica has 4 triangles all the same sizes as shown. She uses them to make a star. Calculate the perimeter of the star.



Not to scale



3. For the given five shapes on a square grid. Write in the missing letters.



Shape has 2 pairs of parallel sides.

Shape is a pentagon.

Shape has reflective symmetry.

3.2 Topic 2 — Mass

1. Convert the following units:

(a) $105 \text{ g} = \text{_____ kg}$.

(b) $1.05 \text{ kg} = \text{_____ g}$.

(c) $0.25 \text{ tonnes} = \text{_____ kg}$.

(d) $1.025 \text{ kg} = \text{_____ mg}$.

(e) $\frac{1}{8} \text{ kg} = \text{_____ g}$.

(f) $43820 \text{ kg} = \text{_____ t}$.

2. Linda needs $\frac{3}{4}$ kg of flour to make 96 cookies. If she has only $\frac{5}{8}$ kg of flour, how many cookies can she make?

3. Mother used $\frac{1}{8}$ kg of raisins to make 2 cakes. She made 12 cakes. If she had $\frac{9}{10}$ kg when she started, how much raisins did she have after that?

4. Parcel A weighs $2\frac{1}{4}$ kg. Parcel B weighs $\frac{2}{3}$ kg more than Parcel A, and parcel C weighs $\frac{1}{3}$ kg less than Parcel B. Find the total weight of these three parcels.

5. Find the mass of a container if its gross mass is 3.4 kg and net mass is 2050 g.

3.3 Topic 3 — Time

1. Complete the following:

- (a) 6 weeks = _____ days.
- (b) 2 years = _____ weeks.
- (c) 14 minutes = _____ seconds.
- (d) $3\frac{2}{3}$ years = _____ months.
- (e) $1\frac{1}{4}$ hours = _____ minutes.

2. Adding and Subtracting of Times:

- (a) 5 hours 20 minutes + 3 hours 23 minutes = _____
- (b) 12 hours 48 minutes + 4 hours 18 minutes = _____
- (c) 8 hours 24 minutes - 2 hours 15 minutes = _____
- (d) 5 hours 35 minutes - 3 hours 53 minutes = _____
- (e) 17 hours 12 minutes - 7 hours 21 minutes = _____

3. From 18 hours 25 minutes take away 6 hours and 15 minutes.

4. How many hours are there from Friday noon to 9 p.m. on the same day?

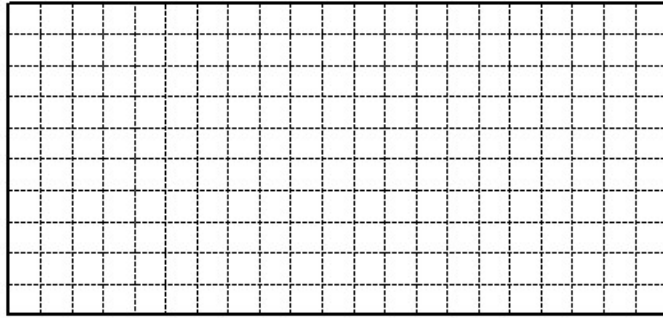
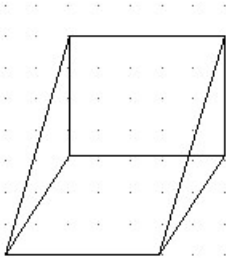
5. How many hours and minutes are there from 9:05 a.m to 3:15 p.m on the same day?

6. If the pulse beats 72 times a minute, how many beats would there be in 1 hour and 25 minutes?

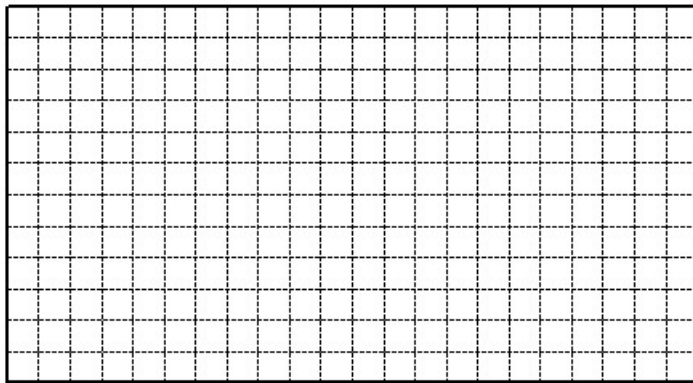
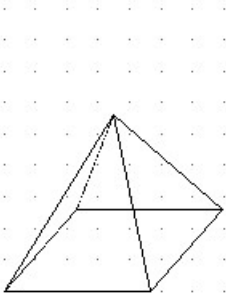
3.4 Topic 4 — Space 3D (Nets)

1. Draw the nets for the following solids:

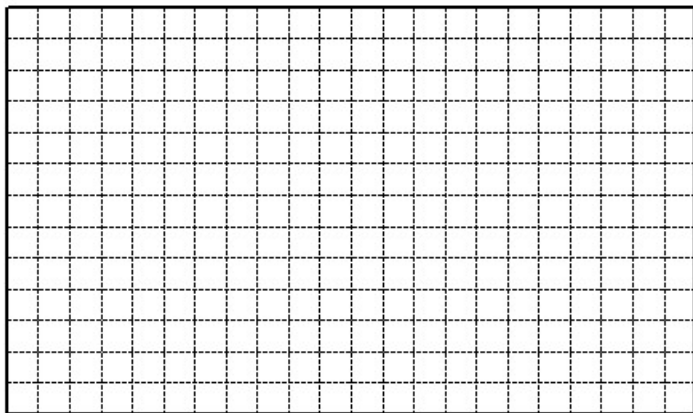
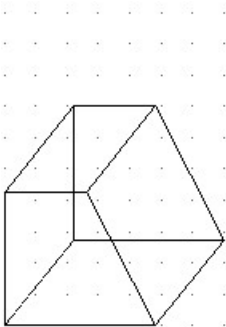
(a)



(b)



(c)



3.5 Problem Solving (Book Problems)

1. Suppose that a printer is using an old-style printing press and needs one piece of type for each digit in the page numbers of a book. How many pieces of type will the printer need to number pages from 1 through to 200?

2. Suppose that a printer is using an old-style printing press and needs one piece of type for each digit in the page numbers of a book. How many pieces of type will the printer need to number pages from 1 through to 325?

3. A book is opened and the product of the two facing page numbers that appear is 1190. What are the two page numbers?

4. One section of a certain book contains six pages. The sum of all the page numbers in this section is 501. What are the page numbers?

3.6 Test Paper 3

3.6.1 Part A — 10 Multiple Choice Questions (1 mark each)

1. Story books are sold at a discount of 15%. How much does Steven have to pay for a story book which used to cost \$16.40?
(A) \$13.94 (B) \$15.64 (C) \$15.46 (D) \$16.54
2. Express the result of $\frac{4}{5} - \frac{1}{2}$ as a decimal:
(A) 0.3 (B) 0.4 (C) 0.5 (D) 0.6
3. How many times the value of 3 is that of 6 in the number 6.23?
(A) 20 (B) 50 (C) 100 (D) 200
4. Which of the following numbers has the smallest value?
(A) 0.2 (B) 0.165 (C) $\frac{1}{4}$ (D) $\frac{1}{6}$
5. If one mL of water has mass one gram, what is the mass of one million liters of water?
(A) 100 kg (B) 1000 kg (C) 100 t (D) 1000 t
6. $5.46 \div 0.6 = ?$
(A) 19 (B) 91 (C) 9.1 (D) 910
7. Which of the following is less than 50?
(A) $50 + \frac{1}{10}$ (B) $50 \times \frac{1}{10}$ (C) $50 \div \frac{1}{10}$ (D) $50 \times 1\frac{1}{10}$
8. How many m^2 in $1 km^2$?
(A) 1000 (B) 1,000,000 (C) 1,000,000,000 (D) None of these
9. A rectangular farm is 5 ha in area. If its breadth is 100 m, what is its length?
(A) 50 m (B) 500 m (C) 5000 m (D) 2500
10. Subtract 3.25 from the product of 1.24 and 5, the answer is:
(A) 2.95 (B) 1.75 (C) 4.35 (D) 3.85

3.6.2 Part B — 10 Average Questions (2 marks each)

1. The square of a number is one less than a quarter of two hundreds. Find this number..

2. If there are 24 hours in a day, how many hours in two fortnights?

3. Raymond sets the alarm clock for 6:15 a.m. At what time he must go to bed to have 9 hours of sleep?

4. From 20 hours 48 minutes take away 15 hours and 52 minutes.

5. The distance of a race track is 400 m. How many laps are required for a 50 km race?

6. Cathy bought 8 apples at 25 cents each and 9 oranges at 35 cents each. How much change did she have from a \$10 note?

7. What is $15\frac{1}{2}\%$ of \$250?

8. In a class of 28 students, $\frac{3}{7}$ are girls. How many boys are there?

9. How many hours are there in three weeks?

10. A car travels 273 km in $3\frac{1}{4}$ hours. Find its average speed in kilometres per hour.

3.6.3 Part C — 10 Extension Questions (3 marks each)

1. Find the sum of $(3\frac{1}{3})^2$ and $(2\frac{1}{2})^2$.

2. A group of fifty people went to a show. An adult's ticket costs \$15 and a child's ticket costs \$8. If one fifth of the group were children, how much did the group pay altogether?

3. At an average speed of 80 km/h a car takes 4 hours to travel a certain distance. How long will it take if the car is travelling at 60 km/h?

4. Mike bought a motorcycle for \$1200. He then repaired it and sold it for \$1600. What percentage profit did he make on the original cost price?

5. Find the average of $\frac{1}{2}$, $\frac{2}{3}$ and $\frac{3}{4}$.

6. The numbers represented by the square must be even and greater than 6. List all the numbers which make the inequality true.

$$24 < (\square \div 2 - 3) \times 2 < 50$$

7. A certain slow clock loses 6 minutes every hour. Suppose the clock is set to the correct time at noon. What will the correct time be when the slow clock first shows 9 p.m.?

8. Find the value of $\frac{52 + (92 \times 52)}{52}$.

9. The sum of eight numbers is 1234. If one of the numbers is changed from 123 to 321. Find the new sum of these numbers.

10. How many cubes with edges of length 2 cm can be made from a rectangular block 12 cm long by 8 cm wide and 4 cm high?

3.6.4 Part D — 8 Challenging Questions (5 marks each)

1. In a magic square, the sum of the numbers in each row, column and diagonal is the same. Complete the following magic squares.

	18	4
6		
	2	12

18	15	
33		
	27	24

2. A car averages 80 km/h for 60 km and 100 km/h for another 25 km. Find the average speed of the whole journey.

3. Find $\sqrt{a^2 + b^2 + c^2 + d^2 + 2 \times d}$ if $a = 2, b = 3, c = 4$ and $d = 5$.

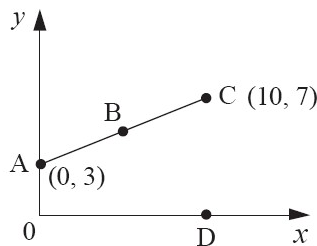
4. A passenger train travelling at 50 km/h passes a freight train travelling in the opposite direction at 40 km/h. Addison, riding on the passenger train, notes that the freight train passes him in 15 seconds. What is the length of the freight train?

5. A passenger train and a freight train leave at the same time from stations that are 360 km apart. The trains are travelling toward each other and the rate of the passenger train is twice the rate of the freight train. If the trains pass each other in four hours, what is the rate of each train?

6. Suppose that a printer uses a total of 402 pieces of type in numbering the pages of a certain book. If the first page number is 1, how many numbered pages does this book contain?

7. Find the value of $\frac{1}{2 + \frac{1}{3 + \frac{1}{4}}}$.

8. For the graph shown below:



- (a) the points A, B and C are equally spaced. What are the coordinates of the point B?

- (b) Point D is directly below point C. What are the coordinates of the point D?
