

Year 5 Term 3 Homework

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

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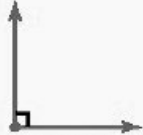




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8 Year 5 Term 3 Week 8 Homework

8.1 Topic 1 — Angles

Classification of angles: the angles can be classified according to their size. There are six different types of angles as shown in the table below:

<p>Acute angle</p>  <p>Between 0° and 90°</p>	<p>Right angle</p>  <p>Equal to 90°</p>	<p>Obtuse angle</p>  <p>Between 90° and 180°</p>
<p>Straight angle</p>  <p>Equal to 180°</p>	<p>Reflex angle</p>  <p>Between 180° and 360°</p>	<p>Revolution</p>  <p>Equal to 360°</p>

1. What kind of angle(s) could be formed by adding two angles given below:

- (a) two acute angles? _____
- (b) two obtuse angles? _____
- (c) an acute angle and an obtuse angle? _____
- (d) two right angles? _____
- (e) two straight angles? _____
- (f) a straight angle and an obtuse angle? _____

2. What kind of angle(s) could be formed by subtracting:

- (a) a right angle from an obtuse angle? _____
- (b) a right angle from a reflex angle? _____
- (c) an acute angle from an obtuse angle? _____
- (d) a reflex angle from a revolution? _____
- (e) a right angle from a revolution? _____
- (f) an obtuse angle from a straight angle? _____

8.2 Topic 2 — Probability

1. Of the conference rooms at the Municipal Complex, 6 face North and 4 face South. If Mrs. Miller has a meeting there this afternoon, what are the chances she'll be in a North-facing room?

2. Matt plays a CD with music from 2 different composers: 6 tracks are by Barber and 2 tracks are by Luke. If his stereo randomly chooses the order in which tracks are played, what are the chances that the first music he hears will be Barber?

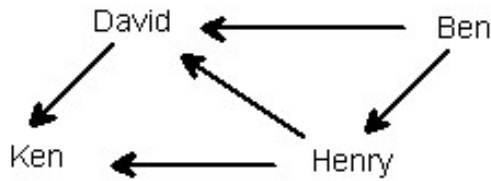
3. Davis has some cans in two cupboards. In the first cupboard, the cans are: 3 squash and 2 spinach. In the second they are: 2 squash and 3 spinach. If Mr. Davis takes a can from each cupboard without looking at the labels, how probable is it that both will be squash?

4. Today Charlie decides to go fishing at Sleepy Pond, which has 4 sunfish and 1 carp in it. If he catches only one fish all day long, how probable is it that it is a sunfish?

5. Jack has some marbles in two bags. In one bag he has 1 blue and 3 red marbles. In the other bag he has 3 blue and 2 red marbles. If Jack takes one marble out of each bag, how likely is it that both will be blue marbles?

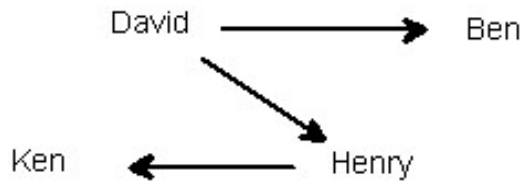
8.3 Topic 3 — Arrow Diagrams

1. If \rightarrow means "stronger than", who is the strongest?



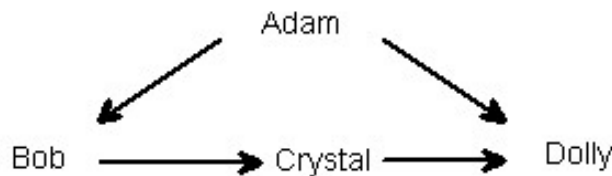
- (A) Ben (B) Henry (C) Ken (D) David

2. If \rightarrow means "taller than", which statement may not be true?



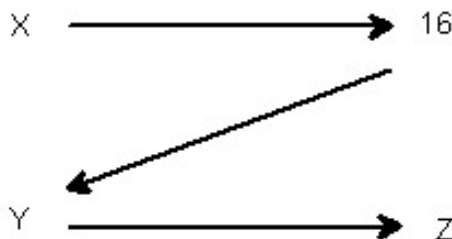
- (A) Henry is taller than Ken. (B) David is tallest.
 (C) Ken is shorter than David (D) Ken is shorter than Ben.

3. Arrange these in ascending order given that \rightarrow means "scored higher than".



- (A) Adam, Bob, Crystal, Dolly (B) Dolly Crystal, Bob, Adam
 (C) Dolly, Adam, Bob, Crystal (D) Crystal Dolly, Adam, Bob

4. If \rightarrow means half that number, what is the sum of X, Y and Z?



Answer: _____

8.4 Topic 4 — Equations

- When a term goes over the equal sign of an equation, its sign is change to the opposite sign.
- Each side of an equation can be multiplied or divided by the same number.

1. One step equations:

(a) $X + 6 = 12$

(b) $Y - 6 = 12$

(c) $6 - X = 12$

(d) $5X = 25$

(e) $-5X = -25$

(f) $-3Y = 12$

(g) $\frac{Y}{5} = 25$

(h) $-\frac{5}{X} = 25$

(i) $X - \frac{1}{2} = \frac{1}{3}$

(j) $Y + \frac{1}{2} = \frac{3}{4}$

2. Two step equations:

(a) $2X - 4 = 10$

(b) $3Y + 8 = 17$

(c) $4X + 3 = -9$

(d) $5Y - 3 = -18$

(e) $\frac{X-3}{2} = 6$

(f) $\frac{Y+4}{3} = 12$

(g) $3 - 4X = 19$

(h) $5 + 2Y = 19$

(i) $5 - 3X = 11$

(j) $2 - 2X = -8$

8.5 Problem Solving (Perimeter)

1. The perimeter of a rectangular play ground is 48 metres. What are the dimensions of the play ground given each of the following conditions:

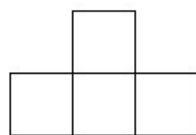
(a) The length is twice the width.

(b) The length is 4 metres more than the width.

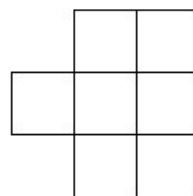
(c) The length is 3 metres less than twice the width.

(d) The width is one-third of the length.

2. Each of the small boxes in these figures is a square. All the squares are the same size. If the perimeter in the Figure (A) is 40 cm, what is the perimeter of Figure (B)?



(A)



(B)

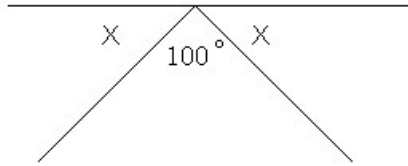
8.6 Test Paper 8

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

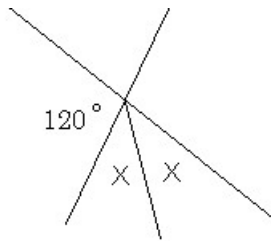
- One seventh means:
(A) 1.7 (B) one from 7 (C) one taken from 7 (D) one out of 7 equal parts
- Find the sum of 5% of 20 m and 20% of 5 m.
(A) 2 m (B) 2.5 cm (C) 4.2 cm (D) 2.4 m
- $\frac{3}{5}$ of 75 is the same as $\frac{3}{4}$ of :
(A) 54 (B) 60 (C) 76 (D) 80
- Divide 2.1 by $\frac{3}{7}$. The result is:
(A) 4.9 (B) 0.9 (C) 9 (D) 3.9
- What number must be placed in the box in order to make the number statement true?
 $\boxed{?} \times 0.003 = 90$
(A) 3,000 (B) 30,000 (C) 300 (D) 300,000
- What number would most likely complete the pattern: 2, 3, 5, 7, 11, 13 _____ .
(A) 17 (B) 19 (C) 15 (D) 16
- What number must be placed in the box to give a 4 digit number which is divisible by 9? 1 $\boxed{?}$ 05
(A) 1 (B) 3 (C) 5 (D) 7
- Express 40 as a fraction of 1200:
(A) $\frac{1}{30}$ (B) $\frac{1}{300}$ (C) $\frac{3}{10}$ (D) $\frac{3}{100}$
- The product of 4 prime numbers is 2145. The product of two of them is 39. The sum of the other two must be:
(A) 8 (B) 12 (C) 14 (D) 16
- Rocky cut a circular pizza using 3 straight cuts. What would be the greatest number of pieces he could get with these cuts?
(A) 7 (B) 8 (C) 9 (D) 10

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

1. Find the value of the pronumeral:



2. Find the value of the pronumeral:



3. Simplify $12 \div 3 + 4 \times 2 - 6$.

4. Solve the equation $2X - 12 = 5X + 12$.

5. Simplify 25% of 50 + 30% of 60.

6. The surface area of a rectangular prism is 76 cm^2 . If two of the sides of the prism are 5 cm and 2 cm, find the length of the third side of the prism.

7. Find the lowest common multiple of 4, 8, 12.

8. When 2 is multiplied by itself 6 times and the result is divided by 8, the answer would be:

9. A ladle holds 650 ml of liquid. How many times would the ladle have to be filled in order to empty a 32 L tank?

10. Kathy walked 600 metres in 10 minutes. What would her speed be in kilometres per hour?

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

1. When a tank is half full of water it weighs 14 kg and when it is $\frac{2}{3}$ full it weighs 18 kg. Find the weight of the empty tank.

2. A triangle has sides of length 5 cm, 9 cm and 10 cm. An equilateral triangle has the same perimeter. What is the length in centimetres of each side of the equilateral triangle?

3. Solve the equation $\frac{2X+4}{3} = \frac{3X-4}{4}$.

4. In a class of 28 students, 8 play no sport, 15 play cricket and 13 play tennis. How many play both sports?

5. A box contained red and black beads. $\frac{3}{4}$ of the red beads and $\frac{2}{5}$ of the black beads were used to make a purse. If 30 beads of each colour were left, what fraction of the beads in the box were used to make the purse?

6. The perimeter of an isosceles triangle is 60 cm. The length of its two equal sides is twice as long as its base. Find the length of the base of the triangle.

7. A rectangle is cut into three equal squares. If the perimeter of a square is 64 cm, find the perimeter of the rectangle.

8. Three single squares are placed side by side to form a single rectangle whose perimeter is 72 cm. Find the area of each square.

9. Joe paid \$108 for 4 pineapples and 8 mangoes. Each pineapple costs 4 times as much as a mango. How much did he pay for the 8 mangoes?

10. Adam has 4 times as many marbles as Tim. If Adam gives Tim 24 marbles, they will have an equal number of marbles. How many marbles do they have altogether?

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

1. Linda bought a box of chocolates on Friday and again on Saturday. The chocolates look the same on the outside, but have different fillings inside. Each box always contains the same number of each kind: 6 mint and 6 caramel. What's the likelihood that the first chocolate Linda ate on both Friday and Saturday had mint filling inside?

2. Linda bought a box of chocolates last week. The chocolates look the same on the outside, but have different fillings inside. It contains the same number of each kind: 6 mint and 6 caramel. What's the likelihood that the first and the second chocolates Linda ate had mint filling inside?

3. A square has a perimeter of 32 cm. When each side increased by 50%. What is the area of the new square?

4. A square has an area of 64 cm^2 . When the square is cut into four equal rectangles and placed end to end. What is the perimeter of the new rectangle?

5. An exercise book costs \$2.50 more than a pen. Ray bought 8 of each item. He paid \$39.20 for them. How much did he pay for the pens he bought?

6. A book cost \$2 more than a pencil case. A pen costs \$3.50 more than the book. If Judy bought 5 of each item. She paid \$45 for them. How much does each item cost?

7. ABCD represents a four-digit number. The product of its digits is 90. What is the largest four-digit number that ABCD can represent?

8. The product of 4 prime numbers is 1155. The sum of two of these primes is 14. Find the sum of the other two primes.
