

SCHOOL (PRIMARY)
PRELIMINARY EXAMINATION – 2017
FOUNDATION MATHEMATICS
PRIMARY SIX

Name : _____ () Parent's Signature : _____

Class : Pri 6 ()

Date : 21 August 2017

PAPER 1 (BOOKLET A)

20 questions

30 marks

Total Time for Booklets A and B: 1 h

INSTRUCTIONS TO CANDIDATES

1. Write your Name, Index No. and Class.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Shade your answers in the Optical Answer Sheet (OAS) provided.
6. The use of calculators is **NOT** allowed.

Questions 1 to 10 carry 1 mark each. Questions 11 to 20 carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice and shade your answer (1, 2, 3 or 4) in the Optical Answer Sheet. (30 marks)

1. Round off 17 469 to the nearest thousand.

- (1) 17 000
 - (2) 17 400
 - (3) 17 500
 - (4) 18 000
-

2. Which of the following is equal to $2\frac{5}{6}$?

- (1) $\frac{10}{6}$
 - (2) $\frac{16}{6}$
 - (3) $\frac{17}{6}$
 - (4) $\frac{25}{6}$
-

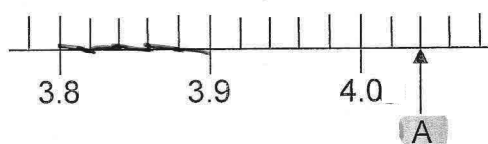
3. In 14.32, which digit is in the tenths place?

- (1) 1
 - (2) 2
 - (3) 3
 - (4) 4
-

4. Which one of the following is the greatest?

- (1) 3.59
 - (2) 3.95
 - (3) 3.509
 - (4) 3.905
-

5. In the number line below, what is the value of A?



- (1) 4.2
 - (2) 4.4
 - (3) 4.02
 - (4) 4.04
-

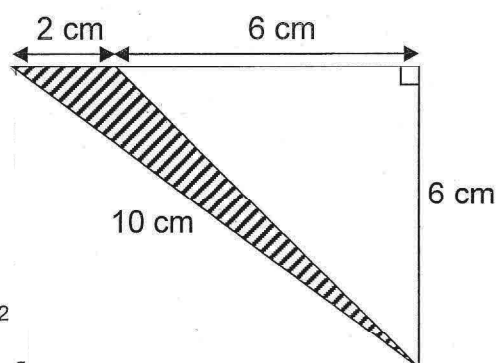
6. The width of a classroom door is about _____ cm.

- (1) 9
 - (2) 90
 - (3) 900
 - (4) 9000
-

7. Which one of the following is the same as 3 km 5 m?

- (1) 305 m
 - (2) 350 m
 - (3) 3005 m
 - (4) 3050 m
-

8. In the figure below, find the area of the shaded triangle.

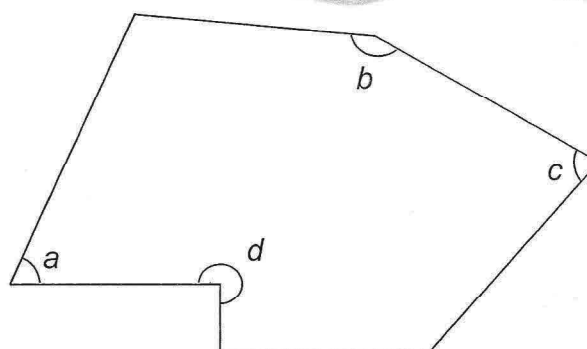


- (1) 6 cm^2
- (2) 10 cm^2
- (3) 18 cm^2
- (4) 24 cm^2

9. Which one of the following letters has both parallel and perpendicular lines?

- (1) N
- (2) U
- (3) T
- (4) H

10. In the figure shown below, which angle is more than 90° but less than 180° ?



- (1) $\angle a$
- (2) $\angle b$
- (3) $\angle c$
- (4) $\angle d$

11. Which one of the following fractions is nearest to $\frac{1}{2}$?

(1) $\frac{1}{4}$

(2) $\frac{3}{8}$

(3) $\frac{7}{12}$

(4) $\frac{9}{16}$

12. Find the value of $20 - 8 \div 2 \times 4 + 2$.

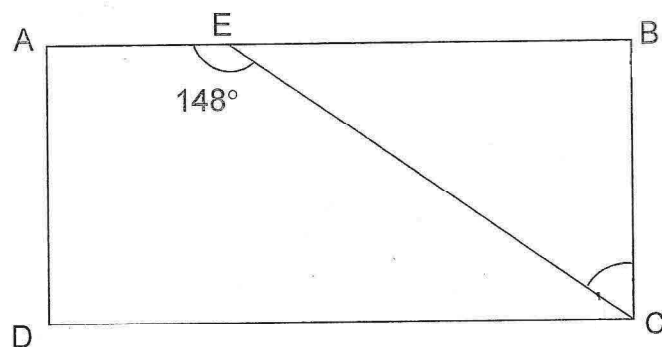
(1) 6

(2) 2

(3) 26

(4) 66

13. ABCD is a rectangle. $\angle AEC = 148^\circ$. Find $\angle BCE$.



(1) 32°

(2) 45°

(3) 58°

(4) 74°

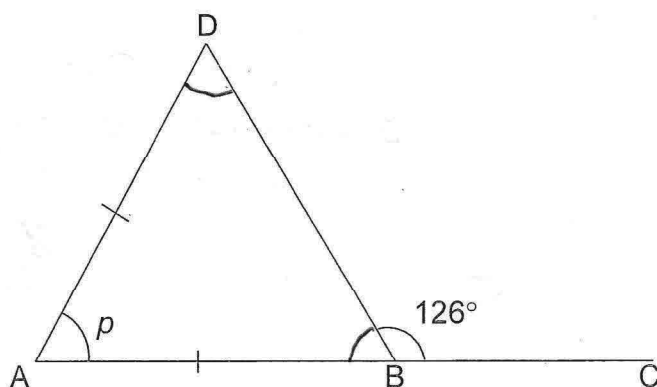
14. Sue reached the bus stop at 12.35 p.m. She waited for 20 minutes before she got on the bus. She got off the bus at 1.20 p.m. How long was her bus ride?

(1) 25 min
(2) 35 min
(3) 45 min
(4) 65 min

15. Paul had 60 balloons. $\frac{1}{3}$ of them were red, $\frac{1}{4}$ of them were blue and the rest were green. How many green balloons did he have?

(1) 15
(2) 20
(3) 25
(4) 35

16. In the figure below, ABC is a straight line. $AB = AD$ and $\angle CBD = 126^\circ$. Find $\angle p$.



(1) 27°
(2) 54°
(3) 63°
(4) 72°

Use the information below to answer questions 17 and 18.

17. In a survey, some children were asked to choose their favourite burger among four types of burgers. Each child chose only one burger. The table below shows their choices.

Burger	Number of Girls	Number of Boys
Beef	28	30
Fish	40	10
Cheese	36	16
Chicken	56	24
Total	160	80

How many **more** children chose beef burgers than fish burgers?

- (1) 32
 - (2) 20
 - (3) 12
 - (4) 8
-

18. What percentage of the boys chose chicken burgers?

- (1) 10%
 - (2) 24%
 - (3) 30%
 - (4) 80%
-

19. The breadth of a rectangle is 3 cm and its area is 36 cm². What is the perimeter of the rectangle?

- (1) 18 cm
 - (2) 24 cm
 - (3) 30 cm
 - (4) 78 cm
-

20. Ben lost $\frac{2}{7}$ of his marbles in a game and had 70 marbles left. How many marbles did Ben have at first?

- (1) 90
 - (2) 98
 - (3) 140
 - (4) 245
-

END OF BOOKLET A

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Name : _____ ()

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Class : Pri 6 ()

Date : 21 August 2017

PAPER 1 (BOOKLET B)

10 questions

20 marks

Booklet A	/ 30
Booklet B	/ 20
Total	/ 50

Total Time for Booklets A and B: 1 h

INSTRUCTIONS TO CANDIDATES

1. Write your Name, Index No. and Class.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Write your answers in this booklet.
6. The use of calculators is **NOT** allowed.

Questions 21 to 30 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

21. Find the value of

(a) $206 - 48$

(b) $72 \div 4$

Do not write
in this space.

Ans: (a) _____

(b) _____

22. Find the value of

(a) $3.18 + 2.7$

(b) 4.03×7

Ans: (a) _____

(b) _____

23. Find the value of

(a) $\frac{1}{3} + \frac{1}{5}$

(b) $\frac{7}{10} \times 4$

Ans: (a) _____

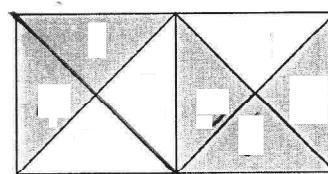
(b) _____

Do not write
in this space.

24. Write down all the common factors of 12 and 30.

Ans : _____

25. The figure is made up of 2 identical squares. What fraction of the figure is shaded?



Ans: _____

26. Ruth had 18 two-dollar notes. She spent \$5.65 on a book. How much money did she have left?

Ans: \$ _____

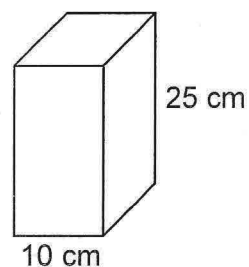
Score:

27. Express $\frac{3}{20}$ as a percentage.

Do not write
in this space.

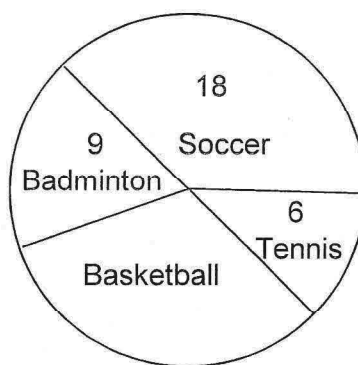
Ans: _____ %

28. The figure shows a rectangular box with a square base of side 10 cm and a height of 25 cm. Find the volume of the box.



Ans: _____ cm³

29. The pie chart below shows the favourite sports of the pupils in a class. Half of the class like soccer and tennis. How many pupils like basketball?

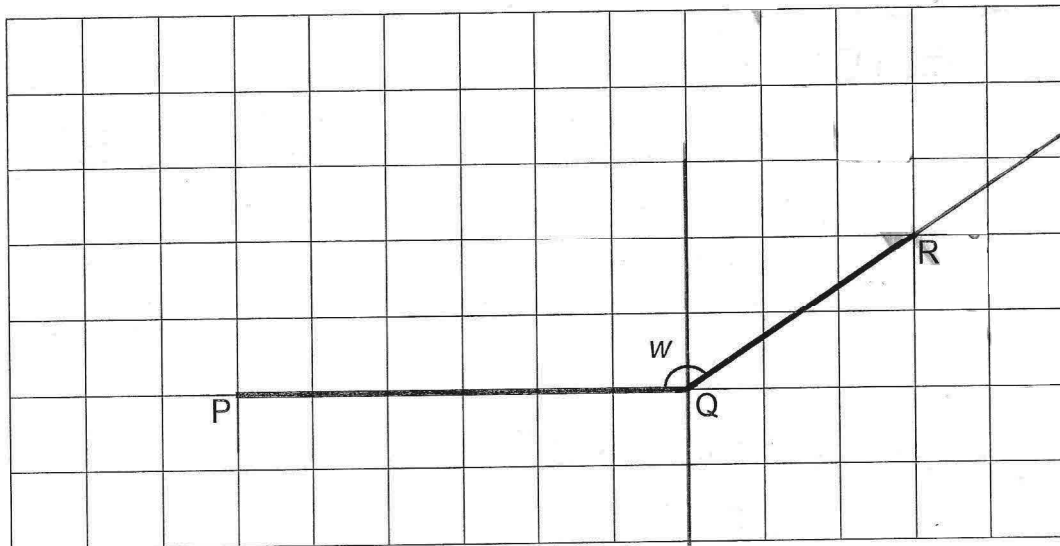


Ans: _____

Score:

30. (a) Measure and write down the size of $\angle w$ shown in the grid below.
- (b) In the grid, draw a line that is perpendicular to QR and passing through R.

Do not write
in this space.



Ans: (a) _____ °

END OF BOOKLET B
END OF PAPER 1

Score:

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Name : _____ () Parent's Signature : _____

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Date : 21 August 2017

PAPER 2
18 questions
50 marks

PAPER 1	/ 50
PAPER 2	/ 50
GRAND TOTAL	/ 100

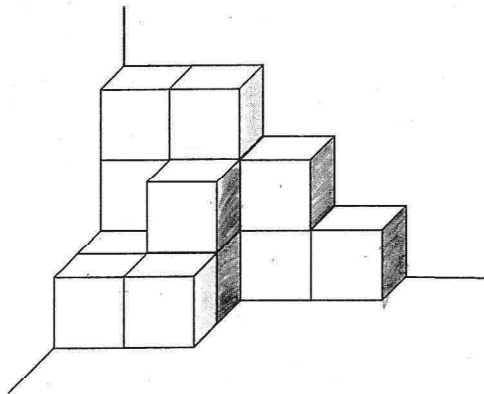
Total Time: 1 h 15 min

INSTRUCTIONS TO CANDIDATES

1. Write your Name, Index No. and Class.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Show your working clearly in this booklet as marks are awarded for correct working.
6. Write your answers in this booklet.
7. The use of an approved calculator is expected, where appropriate.

Questions 1 to 10 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

1. The solid below is made up of 1-cm cubes. Find its volume.



Ans: _____ cm³

2. The average of three numbers is 52. Two of the numbers are 60 and 49. What is the third number?

Ans: _____

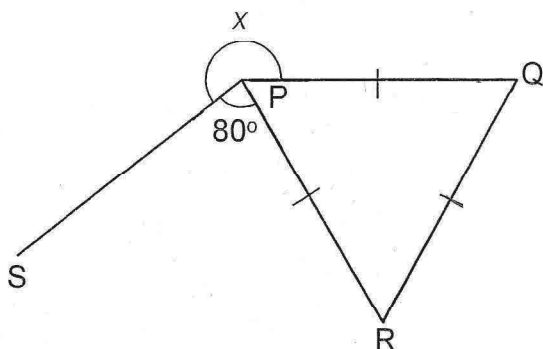
3. Huili has \$78 which is $\frac{2}{5}$ of the cost of a watch. How much **more** money does she need to buy the watch?

Ans: \$ _____

Do not write
in this space.

4. In the figure below, PQR is an equilateral triangle and $\angle SPR = 80^\circ$. Find $\angle x$.

Do not write
in this space.

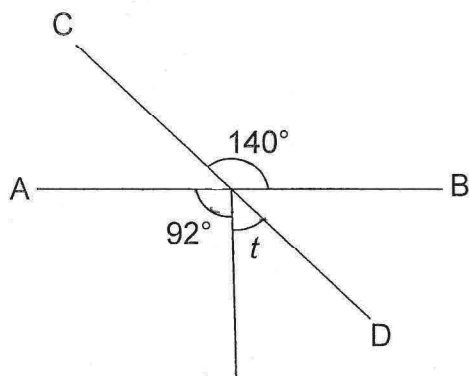


Ans: _____°

5. Jon had $\frac{2}{5}$ kg of sugar. She used $\frac{1}{4}$ of it to bake a cake. How many kilograms of sugar did she use for the cake? Give your answer as a fraction in the simplest form.

Ans: _____ kg

6. In the figure below, AB and CD are straight lines. Find $\angle t$.



Ans: _____°

Score:

7. A dress cost \$95 before GST. What was the price of the dress after adding 7% GST?

Ans: \$ _____

8. 3 girls shared $\frac{3}{4}$ kg of flour equally. How many kilograms of flour did each girl get?

Ans: _____ kg

9. There were 480 pupils in a hall. 35% of them were girls. How many boys were in the hall?

Ans: _____

--

10. Study the pattern below carefully.

Do not write
in this space

M	A	T	H	M	A	T	H	?
1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	53 rd

Which letter is in the 53rd position?

Ans: _____

Score:

For questions 11 to 18, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in brackets [] at the end of each question or part-question. (30 marks)

11. Grapes are sold at \$3 for every 100 g.

- (a) Shawn paid \$15 for some grapes. What was the mass of grapes he bought?
- (b) Mandy bought 3.2 kg of grapes. How much did she pay?

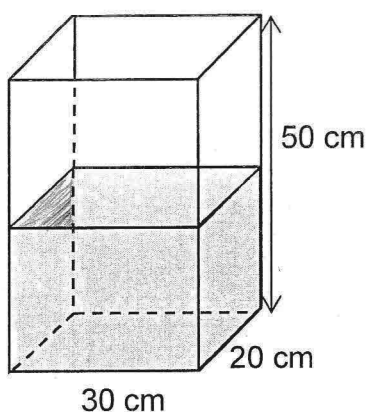
Do not write
in this space.

Ans: (a) _____ [1]

(b) _____ [2]

12. The figure shows a rectangular tank half-filled with water at first.

- (a) How many litres of water were there in the tank at first?
- (b) Jane filled 8 identical bottles with water from the tank. Each bottle contained 450 ml of water. How many millilitres of water was left in the tank?



Ans: (a) _____ [1]

(b) _____ [2]

Score:

13. The total cost of a sofa, a table and a washing machine was \$1200. The sofa cost \$612.

Do not write
in this space.

(a) 64% of the total cost was spent on the sofa and the table. What was the cost of the table?

(b) What was the cost of the washing machine?

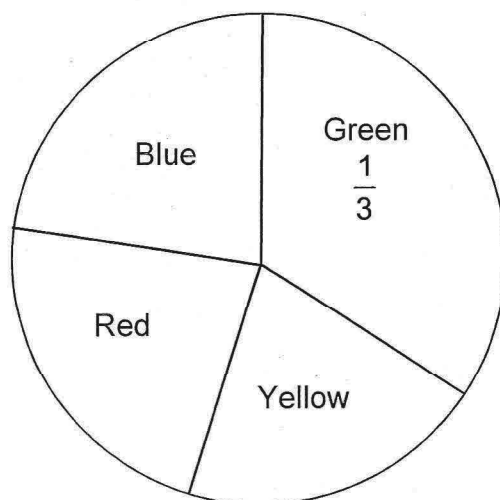
Ans: (a) _____ [2]

(b) _____ [1]

Score:

14. Study the pie chart below. A class of pupils were asked to choose their favourite colour. Every pupil chose one colour. 12 pupils chose green.

Do not write
in this space.



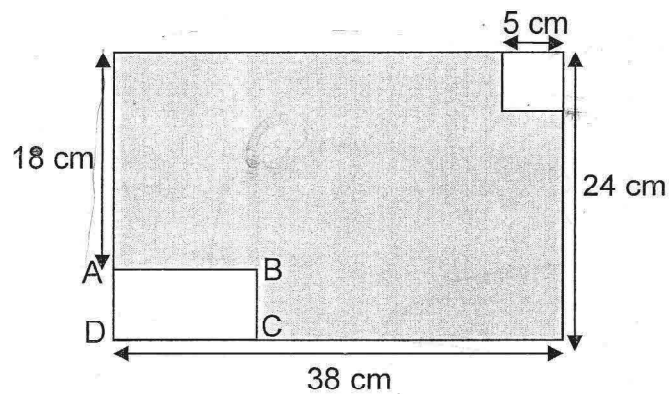
- (a) What was the total number of pupils in the class?
- (b) An equal number of pupils chose blue, red and yellow. What fraction of the class chose blue?

Ans: (a) _____ [1]

(b) _____ [2]

Score:

15. A rectangular piece of cardboard 38 cm by 24 cm is shown below. A rectangle ABCD and a 5-cm square are cut out from it. AB is twice as long as BC.



- (a) What is the total area of the cut-outs?
- (b) What is the area of the remaining piece of cardboard?

Do not write
in this space.

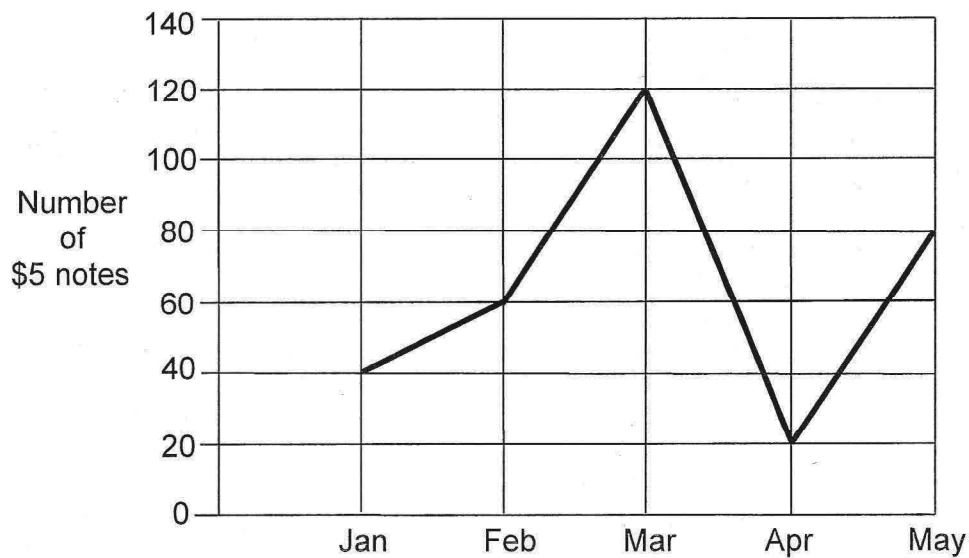
Ans: (a) _____ [2]

(b) _____ [3]

Score:

16. The line graph below shows the number of \$5 notes Kelly had in her savings box over 5 months.

Do not write
in this space.



- (a) In which month did Kelly have the most amount of money?
- (b) In which month was her savings twice that saved in January?
- (c) What was the decrease in her amount of savings from March to April?

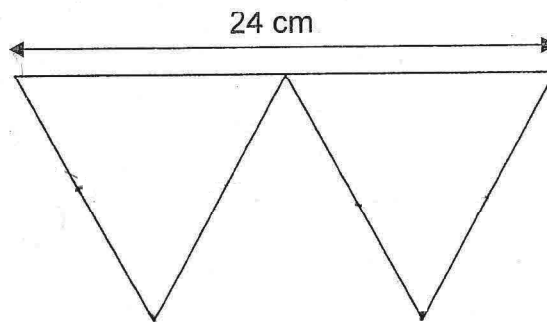
Ans: (a) _____ [1]

(b) _____ [1]

(c) _____ [2]

--

17. Ahmad bent a piece of wire into 2 identical equilateral triangles as shown below.



Do not write in this space.

- (a) What was the total length of the wire?
- (b) He then straightened the wire and bent it into a square. What was the area of the square?

Ans: (a) _____ [2]

(b) _____ [2]

Score:

18. Mrs Choo spent a total of \$4.65 on 4 identical pencils and 5 identical erasers. Each eraser cost \$0.30 more than each pencil.

Do not write
in this space.

(a) How much did the pencils cost?

(b) How much did the erasers cost?

Ans: (a) _____ [3]

(b) _____ [2]

END OF PAPER

Please check your work carefully.

Score:

DEX
NUMBER

EXAMPLE: IF YOU THINK
THE 2ND OPTION IS THE
CORRECT ANSWER SHADE
THE OVAL 2 LIKE THIS :



1

21 1 2 3 4

41 1 2 3 4

2

22 1 2 3 4

42 1 2 3 4

3

23 1 2 3 4

43 1 2 3 4

4

24 1 2 3 4

44 1 2 3 4

5

25 1 2 3 4

45 1 2 3 4

6

26 1 2 3 4

46 1 2 3 4

7

27 1 2 3 4

47 1 2 3 4

8

28 1 2 3 4

48 1 2 3 4

9

29 1 2 3 4

49 1 2 3 4

10

30 1 2 3 4

50 1 2 3 4

11

31 1 2 3 4

51 1 2 3 4

12

32 1 2 3 4

52 1 2 3 4

13

33 1 2 3 4

53 1 2 3 4

14

34 1 2 3 4

54 1 2 3 4

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35 1 2 3 4

55 1 2 3 4

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36 1 2 3 4

56 1 2 3 4

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37 1 2 3 4

57 1 2 3 4

18

38 1 2 3 4

58 1 2 3 4

19

39 1 2 3 4

59 1 2 3 4

20

40 1 2 3 4

60 1 2 3 4