

This test covers material students should know before starting Primary Mathematics SIE 6A.

1 Write the missing numbers.

(a) $5 \times 4 + 5 \times 3 = \boxed{} \times (4 + 3)$

(b) $7 - 8 + 3 = 7 + 3 - \boxed{}$

(c) $6 + 6 \times 8 = 6 \times (\boxed{} + 8)$

2 Circle True or False.

(a) $14 + 2 - 4 - 6 = 14 - 4 - 6 + 2$ True False

(b) $630 - 197 + 28 = 630 - (197 + 28)$ True False

(c) $432 \div 8 - 8 = 432 - 8 \div 8$ True False

(d) $12 \times 2 \div 4 = 12 \div 4 \times 2$ True False

3 Write the missing numbers.

(a) $\frac{2}{7} = 2 \div \boxed{}$

(b) $6 \div 18 = \frac{\boxed{}}{3}$

(c) $1\frac{1}{3} \times 2 = \frac{\boxed{} \times 2}{3}$

(d) $\frac{20}{9} \times \frac{6}{5} = \frac{4 \times \boxed{}}{3 \times 1}$

4 Multiply. Express each answer as a proper fraction or mixed number in its simplest form.

(a) $4 \times \frac{5}{3} =$

(b) $6 \times 1\frac{1}{2} =$

(c) $\frac{2}{5} \times \frac{10}{3} =$

(d) $2\frac{8}{9} \times \frac{3}{4} =$

5 Jaden has a jar of yellow, green, purple, and red beads.
 $\frac{1}{5}$ of the beads are yellow and $\frac{1}{4}$ of them are green.
 $\frac{3}{11}$ of the remaining beads are red.
There are 45 fewer red beads than purple beads.
How many purple beads are there?

6 Express each fraction as a decimal correct to one decimal place.

(a) $\frac{1}{8}$

(b) $\frac{7}{6}$

7 Express each fraction as a decimal correct to two decimal places.

(a) $\frac{8}{11}$

(b) $\frac{20}{6}$

8 Fill in the boxes.

(a) $1.64 \times 10 =$

(b) $20.432 \times$ $= 2043.2$

(c) $\times 30.08 = 300.8$

(d) $2.8 \times 200 =$

(e) $6.13 \times 3000 =$

(f) $12.5 \times 700 =$

9 Fill in the boxes.

(a) $1.3 \div 100 =$

(b) $2 \div 1000 =$

(c) $6.71 \div$ $= 0.671$

(d) $84 \div 2000 =$

(e) $72 \div 600 =$

(f) $1.5 \div 300 =$

10 Mr Tan had just enough money to buy 80 pens.
However, he bought 60 pens and had \$51 left.
What was the cost of each pen?

11 Convert the following.

(a) $0.46 \text{ m} = \boxed{} \text{ cm}$

(b) $15.02 \text{ km} = \boxed{} \text{ m}$

(c) $5.2 \text{ l} = \boxed{} \text{ ml}$

(d) $7 \text{ kg } 1 \text{ g} = \boxed{} \text{ g}$

(e) $90.08 \text{ m} = \boxed{} \text{ m } \boxed{} \text{ cm}$

(f) $48.2 \text{ l} = \boxed{} \text{ l } \boxed{} \text{ ml}$

12 Convert the following.

(a) $901 \text{ g} = \boxed{} \text{ kg}$

(b) $476 \text{ cm} = \boxed{} \text{ m}$

(c) $18 \text{ ml} = \boxed{} \text{ l}$

(d) $4700 \text{ m} = \boxed{} \text{ km}$

(e) $18 \text{ kg } 15 \text{ g} = \boxed{} \text{ kg}$

(f) $3 \text{ m } 7 \text{ cm} = \boxed{} \text{ m}$

- 13** A basket with 5 identical wooden blocks has a mass of 3.9 kg.
The mass of the empty basket is 0.63 kg.
What is the mass of each wooden block in grams?

- 14** A flask contained 4 times as much water as a jug at first.
After 1.05 l of water was poured from the flask into the jug,
both containers had the same amount of water.
How much water is there in the jug now?
Give your answer in litres and millilitres.

- 15** The total mass of 3 identical bags of beans and 4 identical bags of sugar is 7 kg.
The total mass of a bag of beans and a bag of sugar is 2.2 kg.
What is the mass of the 3 bags of beans?
Give your answer in kilograms.

- 16** The cost of carpeting a room of 20 m^2 is \$650.
What is the cost of carpeting 5 square metres of the room?

17 In 2 hours, Susan cycles 58 km.

(a) At this rate, how far can she cycle in 6 hours?

(b) How long will it take her to cycle 145 km?

18 A rectangular tank measuring 80 cm by 40 cm by 30 cm is completely filled with water. A tap was turned on to drain the water from the tank at a rate of 9 ℓ per minute. How long did it take to drain $\frac{3}{4}$ of the water from the tank?

- 19** The table shows the cost of sending a parcel to City Z.

First 300 g	\$2.80
Each 50 g or part thereof	\$1.00

How much does it cost to send a parcel that has a mass of 530 g?

- 20** Express each of the following as a percentage.

(a) $\frac{7}{100} =$

(b) $\frac{3}{4} =$

(c) $\frac{75}{500} =$

(d) $0.05 =$

(e) $0.30 =$

(f) 7 out of 25 =

- 21** Express each percentage as a decimal.

(a) $22\% =$

(b) $9\% =$

22 Express each percentage as a fraction in its simplest form.

(a) $5\% =$

(b) $34\% =$

23 Find the value of each of the following.

(a) 65% of 400

(b) 18% of 1200

24 (a) Express \$80 as a percentage of \$320

(b) Express 600 ml as a percentage of 2 l.

- 25** A basketball team scored 80 points in a game.
The team scored 55% of the points in the second half.
How many points did they score in the first half of the game?

- 26** There were 80 animals at a pet show.
60% of the pets were dogs.
15% of the pets were cats.
How many more dogs than cats were there?

- 27** The price of a washing machine before GST is \$500.
What is the price of the washing machine including 9% GST?

- 28** There are 600 people in a theatre. 150 of them are men.
43% of them are women. The rest are children.
What percentage of the people in the theatre are children?

Answer Key

- 1** (a) 5
(b) 8
(c) 1
- 2** (a) True
(b) False
(c) False
(d) True
- 3** (a) 7 (b) 1
(c) 4 (d) 2
- 4** (a) $6\frac{2}{3}$ (b) $10\frac{1}{2}$
(c) $1\frac{1}{3}$ (d) $2\frac{1}{6}$
- 5** 72 beads
- 6** (a) 0.1 (b) 1.2
- 7** (a) 0.73 (b) 3.33
- 8** (a) 16.4
(b) 100
(c) 10
(d) 560
(e) 18 390
(f) 8750
- 9** (a) 0.013
(b) 0.002
(c) 10
(d) 0.042
(e) 0.12
(f) 0.005
- 10** \$2.55
- 11** (a) 46 cm
(b) 15 020 m
(c) 5200 ml
(d) 7001 g
(e) 90 m 8 cm
(f) 48 l 200 ml
- 12** (a) 0.901
(b) 4.76
(c) 0.018
(d) 4.7
(e) 18.015
(f) 3.07
- 13** 654 g
- 14** 1 l 750 ml
- 15** 5.4 kg

Answer Key

- 16** \$162.50
- 17** (a) 174 km
(b) 5 hours
- 18** 8 minutes
- 19** \$7.80
- 20** (a) 7% (b) 75%
(c) 15% (d) 5%
(e) 30% (f) 28%
- 21** (a) 0.22 (b) 0.09
- 22** (a) $\frac{1}{20}$ (b) $\frac{17}{50}$
- 23** (a) 260 (b) 216
- 24** (a) 25%
(b) 30%
- 25** 36 points
- 26** 36 more dogs than cats
- 27** \$545
- 28** 32%