



BASELINE ASSESSMENT

GRADE 8

MEMORANDUM

This test is mainly to identify the learner's problem areas. The final mark is only a rough estimation, as the weight of all the questions are 1 mark irrespective of number of steps.

Total:

100

Calculate:

1) $2 + 4 = 6$

2) $3 + 5 = 8$

3) $16 + 8 = 24$

4) $27 + 18 = 45$

5) $9 - 4 = 5$

6) $12 - 5 = 7$

7) $23 - 11 = 12$

8) $57 - 39 = 18$

9) $-1 + 6 = 5$

10) $5 - 9 = -4$

7001

FOR MARK

FOR MARK

FOR MARK

FOR MARK

7002

FOR MARK

FOR MARK

FOR MARK

FOR MARK

7003/4

FOR MARK

FOR MARK

Calculate without the use of a calculator:

11) $-5 \times 10 \times -3$

$= 150$

12) $28 \div -7 = -4$

13) $4 \times 3 + 6 \times 5$

$= 12 + 30$

$= 42$

14) $8 + 2 \times 9$

$= 8 + 18$

$= 26$

15) $-30 \div 10 \times 5 + 7$

$= -3 \times 5 + 7$

$= -15 + 7$

$= -8$

7005

FOR MARK

FOR MARK

7006

FOR MARK

FOR MARK

7007

FOR MARK

16) $3 \times 2 \times (72 \div 9) - 13$

$= 2 \times 3 \times 8 - 13$

$= 6 \times 8 - 13$

$= 48 - 13$

$= 35$

17) $\frac{2}{6}$ of $36 - 10$

$= \left(\frac{2}{6} \times \frac{36}{1}\right) - 10$

$= (2 \times 6) - 10$

$= 2$

18) $4 \times 10 \div 5 \times (13 - 11)$

$= 4 \times 10 \div 5 \times 2$

$= 40 \div 5 \times 2$

$= 8 \times 2$

$= 16$

FOR MARK

7008

FOR MARK

7009

FOR MARK

7010

FOR MARK

FOR MARK

7011

FOR MARK

FOR MARK

19) $5000 \text{ ml} = 5 \text{ l}$

20) $6 \text{ m} = 600 \text{ cm}$

21) $6,52 \text{ kg} = 6520 \text{ g}$

22) $59 \text{ m} = 0,059 \text{ km}$

Round off to the nearest 10:

23) $84 \approx 80$

24) $167 \approx 170$

Round off to the nearest 100:

25) $2154 \approx 2200$

26) $375 \approx 400$

Round off to the nearest 1000:

27) $6448 \approx 6000$

28) $7835 \approx 8000$

7012

FOR MARK

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FOR MARK

Round off to the nearest integer:

7013

29) $1,49 \approx 1$

FOR MARK

30) $14,621 \approx 15$

FOR MARK

Round off to 1 decimal place:

31) $12,53 \approx 12,5$

FOR MARK

32) $67,397 \approx 67,4$

FOR MARK

Round off to 2 decimal places:

33) $56,235 \approx 56,24$

FOR MARK

34) $8,3662 \approx 8,37$

FOR MARK

Determine the prime factors:

7014

35) $81 = 3 \times 3 \times 3 \times 3$

FOR MARK

36) $216 = 2 \times 2 \times 2 \times 3 \times 3 \times 3$

FOR MARK

Determine the factors:

7015

37) 40

$1; 2; 4; 5; 8; 10; 20; 40$

FOR MARK

38) 36

$1; 2; 3; 4; 6; 9; 12; 18; 36$

FOR MARK

Determine the lowest common multiple:

7016

39) 14 and 6:

$LCM = 2 \times 3 \times 7 = 42$

FOR MARK

40) 4 and 5 and 8:

$LCM = 2 \times 2 \times 2 \times 5$

$= 40$

FOR MARK

Determine the highest common factor:

7017

41) 24 and 40:

$24 =$

$1; 2; 3; 4; 6; 8; 12; 24$

$40 =$

$1; 2; 4; 5; 8; 10; 20; 40$

$HCF = 8$

FOR MARK

42) 12 and 30 and 36:

$12 = 1; 2; 3; 4; 6; 12$

$30 =$

$1; 2; 3; 5; 6; 10; 15; 30$

$36 =$

$1; 2; 3; 4; 6; 9; 12; 18; 36$

$HCF = 6$

FOR MARK

Find the equivalent fractions:

7019

43) $\frac{5}{7} = \frac{15}{21}$

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44) $\frac{2}{9} = \frac{8}{36}$

FOR MARK

Simplify:

45) $\frac{35}{77} = \frac{5}{11}$

FOR MARK

46) $\frac{24}{80} = \frac{3}{10}$

FOR MARK

Fill in <, > or =

47) $\frac{3}{5} < \frac{20}{25}$

FOR MARK

48) $\frac{7}{9} > \frac{3}{5}$

FOR MARK

Write as mixed fraction:

49) $\frac{11}{2} = 5\frac{1}{2}$

7020

FOR MARK

50) $\frac{38}{5} = 7\frac{3}{5}$

Write as improper fraction:

51) $8\frac{2}{3} = \frac{26}{3}$

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52) $3\frac{9}{11} = \frac{42}{11}$

Calculate without a calculator:

53) $\frac{5}{7} + \frac{4}{7} = \frac{9}{7}$

7021

FOR MARK

54) $\frac{1}{6} + \frac{4}{9}$

$= \frac{3}{18} + \frac{8}{18}$

$= \frac{11}{18}$

FOR MARK

55) $1\frac{1}{3} + 2\frac{3}{4}$

7022

$= \frac{4}{3} + \frac{11}{4}$

$= \frac{16 + 33}{12}$

$= \frac{49}{12} = 4\frac{1}{12}$

FOR MARK

56) $\frac{2}{3} \times \frac{5}{8}$

7023

$= \frac{5}{12}$

FOR MARK

57) $\frac{7}{9}$ of 45

$= 35$

FOR MARK

58) $\frac{3}{8} \div \frac{1}{7}$

$= \frac{3}{8} \times 7$

$= \frac{21}{8}$

FOR MARK

59) $2\frac{1}{4} \times 5\frac{5}{6} \div 1\frac{11}{24}$

7024

$= \frac{9}{4} \times \frac{35}{6} \div \frac{35}{24}$

$= \frac{9}{4} \times \frac{35}{6} \times \frac{24}{35}$

$= 9$

FOR MARK

61) $83,16 + 47,292$

7026

'Added up underneath each other'

$= 130,452$

FOR MARK

62) $51,75 - 33,42$

'Subtracted underneath each other'

$= 18,33$

FOR MARK

63) $2,3 \times 6$

7027

'Used long multiplication'

$= 13,8$

64) $519,28 \div 2 = 259,64$

7028

'Used short or long div.'

7029

65) $82,13 \times 10 = 821,3$

FOR MARK

66) $354,86 \div 100 = 3,5486$

FOR MARK

7030

Complete the table:

7036

Fractions	Decimals	Percentages
$\frac{1}{4}$	67) 0,25	68) 25%
$\frac{3}{5}$	69) 0,6	70) 60%
71) $\frac{7}{20}$	0,35	72) 35%
73) $\frac{1}{2}$	0,5	74) 50%
75) $\frac{22}{25}$	76) 0,88	88%
77) $\frac{21}{50}$	78) 0,42	42%

Calculate:

79) 24% of 700

7039

$$= \frac{24}{100} \times \frac{700}{1}$$

$$= 24 \times 7 = 168$$

FOR MARK

80) Increase 250 with 20%

7040

$$= 250 + (20\% \text{ of } 250)$$

$$= 250 + \left(\frac{20}{100} \times \frac{250}{1} \right)$$

$$= 250 + 50 = 300$$

FOR MARK

81) Decrease 600 with 11%

7041

$$= 600 - (11\% \text{ of } 600)$$

$$= 600 - \left(\frac{11}{100} \times \frac{600}{1} \right)$$

$$= 600 - 66 = 534$$

FOR MARK

82) Calculate the % increase if 60 is increased to 75

7042

$$= \frac{75 - 60}{60} \times \frac{100}{1}$$

$$= \frac{15}{60} \times \frac{100}{1}$$

$$= \frac{100}{4} = 25\%$$

FOR MARK

7045

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7047

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7048

FOR MARK

FOR MARK

83) $5^3 = 125$

84) $1^6 = 1$

85) $10^0 = 1$

86) $10^2 = 100$

87) $\left(\frac{2}{5}\right)^2 = \frac{4}{25}$

88) $(0,6)^2 = \frac{36}{100} = 0,36$

89) $\sqrt{6400} = 80$

90) $\sqrt{\frac{1}{16}} = \frac{1}{4}$

91) $4^2 + \sqrt{9} - \sqrt{49}$

7049

$$= 16 + 3 - 7$$

$$= 12$$

FOR MARK

7051

92) $\left(\frac{3}{4}\right)^3 = \frac{27}{64}$

93) $2^3 = 8$

94) $(0,5)^3 = 0.125$

FOR MARK

FOR MARK

FOR MARK

7052

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FOR MARK

95) $\sqrt[3]{64} = 4$

96) $\sqrt[3]{\frac{1}{8}} = \frac{1}{2}$

97) $\sqrt[3]{0,027} = 0,3$

7053

98) $(2^3 + 3^3) \div 5$

$$= 35 \div 5 = 7$$

FOR MARK

99) $\sqrt[3]{1000} + 50 - 3^3$

$$= 10 + 50 - 27 = 33$$

FOR MARK

100) $(3^2 - 4^2) + \sqrt[3]{125}$

$$= -7 + 5 = -2$$

FOR MARK