BASIC ARITHMETIC and BASIC ALGEBRA ASSESSMENT SAMPLE

You have up to 1 hour to complete ñ ì u µ o Ÿ ‰ o Z }.]   ‹ µ • Ÿ } v •
o µ o š } Œ • v   ] Ÿ } v Œ] • Œ E K d o o } Á X

^ /   Z / d , D d /   ^ D W >   ~ î ñ ‹ µ • Ÿ } v • •

PART A - Z } o v µ u Œ •

1. Add: 39,437 + 127,648 + 7,056   1. _____

2. Subtract: 19,820 from 209,327   2. _____

ï X D µ o Ÿ ‰ o Ç W   ñ U ì ò ð y ï î ó   3. _____

4. Divide: 46,428 ÷ 876   4. _____

ñ X Z } µ v } + š } š Z v Œ • š Z µ v Œ W   ó ñ U ô ò ï _____

PART B - & Œ Ÿ } v •

í X ^ µ ‰ ‰ o Ç š Z $\frac{7}{8}$] • •] v P š Œ u W   1. _____

2. Reduce to o } Á terms: $\frac{42}{54}$ 2. _____

3. Find the o Œ P • š Ÿ } v W $\frac{9}{14}$, $\frac{9}{13}$, $\frac{9}{15}$

$\dfrac{1}{6}$ 5. _____

ò X D µ o Ÿ ‰ o Ç W í î y $\frac{3}{4}$ 6. _____

7. Divide: $\frac{7}{24}$ y $\frac{21}{8}$ 7. _____

PART C -] u o •

í X t Œ] š • (Œ terms :].75 o } Á • š   1. _____

2. Write $\frac{5}{8}$ as a decimal.   2. _____

PART D -W Œ   v š

í X   Æ ‰ Œ • • ô ð 9 •   (e0ins: Ÿ } v] v o } Á • š   1. _____

2. Express 8½% as a decimal numeral: 2. _____

3. Express $\frac{18}{25}$ as a per cent: 3. _____

ð X   / v   o • • } (ñ ì • š µ   v š • U í ñ • š µ   v š • Z À   Œ } Á v Z] Œ X   t Z š] •
   š Z   ‰ Œ   v š a r e d s t u d e n t s in the class?   4. _____

5. A store had a sale Á] š Z î ì 9 } + } v   o o] š u • X   , } Á u µ Z Á } µ o
   Ç } µ   ‰ Ç (} Œ   ‰] š µ Œ   Á Z] Z Z   Œ 5 µ o Œ ‰ Œ]   } (¨ ô ì M

ò X   ñ 9 • l • š Æ } v   v] š u] • ¨ X ó ñ X   &] 6 v   š Z   ‰ Œ]   } (š Z   ] š u X

   v • Á Œ I Ç (} Œ   •]   Œ] š Z u Ÿ

PART A   PART B   PART C   PART D

1.   174,141   1. $\frac{7}{8} = \frac{42}{48}$ 1. $\frac{3}{4}$ 1. $21\frac{1}{25}$

2.   189,507   2. $\frac{7}{9}$ 2. .625   2. .085

3.   1,655,928   3. $\frac{9}{13}$ 3. 7432.05   3. 72%

4.   53   4. $31\frac{1}{36}$ 4. 703.159   4. 30%

5.   74,900   5. $2\frac{17}{24}$ 5. 80.46   ñ X   ¨ ò ð

                           6. 9   6. .1689   ò X   ¨ í ñ

                           7. $\frac{1}{9}$ 7. 1.37

<u>PART A -</u>   •]   } v   ‰ š •

Z } } •   š Z   o © Œ } (š Z   } Œ Œ   š   v •Á Œ   v   ‰ o   ] š] v š Z   o v l •‰   š š Z   Œ

1. {0,1,2,3,4,.......} is called the set of:
    a) natural numbers   •   Œ] š Z u Ÿ   v µ u   Œ •

<u>PART C</u> ^}oÀ]vP ‹µ Ÿ}v•

^}oÀ šZ (}oo}Á]vP ‹µ Ÿ}v• (}Œ —Æ— •Z}Á]vP oo v •• Œ Ç •š ‰•W

1. 5x + 2 = 17

1. _____

2. 4x + 3(x + 2) = 20

2. _____

3. $\dfrac{1}{3}$ x + $\dfrac{1}{5}$ x = 8

3. _____

4. 6x 4 = 2x + 12

4. _____

5. $\dfrac{x}{3} = \dfrac{12}{18}$

5. _____

<u>PART D</u> ^}oÀ]vP Á}Œ ‰Œ} o u• µ•]vP ‹µ Ÿ}v•

íX dÁ] vµu Œ]• •µ šŒ š (Œ}u ñ v šZ Œ •µoš]• íìX W] I šZ }ŒŒ š

   a) x² 5 = 10   b) 5 2x = 10

   c) 2x 5 = 10   d) 5 x² = 10

2. A man is šZ Ÿu • • }o •Z]• µPZš ŒX dZ •µu }(šZ]Œ P •]• ñîX W] I

   a) x³ + x = 52   b) x + x + 3 = 52

   c) x + 3x = 52   d) 3(x+ x) = 52

ïX /(vµu Œ]•]v Œ • Ç îì9 šZ Œ •µoš]• óìX W] I šZ }ŒŒ š ‹µ Ÿ}v

   a) x + .02x = 70   b) x + .2x = 70

   c) x + 20x = 70   d) x + 20 = 70

ðX dZ ‰ Œ]u šŒ }(‰] šµŒ (Œ u]• ïð]v Z •X W] I šZ }ŒŒ š ‹µ Ÿ}v
o vPšZ }(šZ (Œ u]• ï]v Z • u}Œ šZ v šZ Á] šZX

   a) x + 3x = 34   b) x + x + 3 = 34

   c) x + x + 3 = 17   d) 2x + 2x + 3 = 34

ñX dZ •µu }(šZŒ }v• µŸÀ]vš P Œ•]• íìñX W] I šZ }ŒŒ š ‹µ Ÿ}v š}

   a) x + 2x 3x = 105   b) 3x = 105

   c) x + x + 1 + x + 2 = 105   d) x + 3 = 105

<u>Answer key for Basic Algebra</u>