VISUAL DELIVERY

EMMathon 3–4

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Teacher Information

EMMathon
After students have self-evaluated their first group of 20 lessons (myEMMdata page 12), teachers are advised to run an EMMathon.
An EMMathon is made up of 5 Marathons. A Marathon consists of 2 lessons from the previous 10, where the teacher presents the entire 40 questions without any teacher modelling.

The first Marathon (myEMMdata page 14, coded M01 in the plan below) revisits Lessons 11 and 12 (coded L11–L12) where only the question is presented. The second Marathon (M02) revisits Lessons 13 and 14 (L13–L14) etc. After the first EMMathon is completed, teachers return to the program presenting Lessons 21–40 as per the EMM script.

After students have self-evaluated their second group of 20 lessons (myEMMdata page 26), teachers run a second EMMathon (myEMMdata page 28), then return to the program, and so on. Each of the darker shaded sections below denote an EMMathon round. An EMMathon round consists of 10 lessons restructured into 5, effectively adding 40 lessons to the EMM program.

EMMathon to BugFree
EMMathon provides students with the opportunity to demonstrate they are BugFree; they affirm fluency and further enhance self-efficacy. Following the first EMMathon students should complete EMMathon 1 Task, myEMMdata page 58, and then, go to page 60 and convert their own EMMathon 1 scores to BugFree levels. Conversions should be performed after each EMMathon.
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- Marathon 11
- Marathon 12
- Marathon 13
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- Marathon 15

EMMathon 4
- Marathon 16
- Marathon 17
- Marathon 18
- Marathon 19
- Marathon 20
Marathon 11
Question 1

2 5 4 3
Question 3

\[ \begin{align*}
\text{21} & \times \text{24} \\
\end{align*} \]

\[ \begin{align*}
\text{24} & + \text{4220} \\
\text{5} & \ ? \ 4
\end{align*} \]
Question 4

\[
\begin{array}{c}
5 \\
\hline
7 \\
\hline
26
\end{array}
\]
Question 6
Question 7

1 2 4
Question 8

\[
\frac{3}{10} + \frac{1}{10} = \frac{10}{10}
\]
Question 9

![Number Line with Fractions]

- \( \frac{0}{10} \) to \( \frac{10}{10} \)
- 0 to 1.0
Question 10
Question 11
Question 12
Question 13
Question 14
Question 15
Question 16
Question 17

\[ X = (8 \times y) + 3 \]

\[ y = 2 \]
Question 18
Question 19

Garden Nursery Map

Scale: 1 cm = 50 metres

L51
Elementary Math Mastery
Question 20
Question 2

4 0 3 5
Question 3

\[ \begin{array}{c}
31 \\
\times \\
13 \\
\hline
? 3 \\
\hline
? 3 \\
\hline
? 3 \\
\hline
? ? ?
\end{array} \]

+ 31

\[ \begin{array}{c}
? 3 \\
\hline
4 ? ?
\end{array} \]
Question 4

\[
\begin{array}{c}
5 \\
\hline
15
\end{array}
\]

\[
\begin{array}{c}
727
\end{array}
\]
Question 5
Question 6
Question 7
Question 8

\[
\frac{3}{10} - \frac{1}{10} = \frac{1}{10}
\]
Question 9
Question 10
Question 11
Question 12

A square with side length 1 m. The area of the square is $1 \text{ m}^2$. 

L52
Elementary Math Mastery
Question 13
Question 14
Question 15
Question 16
Question 17

\[ x = 2y + 3 \]

\[ y = 2 \]
Question 18
Question 20
Marathon 12
Question 1

3 2 2 2 4
Question 2

3 2 2 4
Question 3

\[
\begin{array}{c}
\times \\
\hline
\end{array}
\]

\[
\begin{array}{c}
21 \\
\hline
31 \\
\hline
630 \\
\hline
6?\ ?\ ?
\end{array}
\]
Question 4
Question 6
Question 7

1 2 4

L53
Elementary Math Mastery
Question 8

\[
\frac{8}{10} + \frac{1}{10} = \frac{9}{10}
\]
Question 9

0 \frac{1}{10} \frac{2}{10} \frac{3}{10} \frac{4}{10} \frac{5}{10} \frac{6}{10} \frac{7}{10} \frac{8}{10} \frac{9}{10} \frac{10}{10}

0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0
Question 10
Question 11
Question 12
Question 13
Question 14
Question 15
Question 17

\[ x = 5y - 4 \]

\[ y = 3 \]
Question 18
Question 19
Question 1

4 1 5 3
Question 2

4 1 5 3
Question 3

\[
\begin{array}{c}
21 \\
\times 32 \\
\hline
422 \\
+ 6 \\
\hline
6?
\end{array}
\]
Question 4
Question 5
Question 6
Question 7

1 2 4

L54
Elementary Math Mastery
Question 8

\[ \frac{8}{10} - \frac{1}{10} = \]
Question 9
Question 10
Question 11

![Diagram of a pyramid with labels for apex, face, edge, and vertex.]

L54

Elementary Math Mastery
Question 12
Question 13
Question 15
Question 16
Question 17

\[ x = 5y - 1 \]

\[ y = 2 \]
Question 18
Question 19
Question 20
Marathon 13
Question 2

4 3 3 4
Question 3

\[ \begin{array}{cc}
\times & 2 \ 3 \\
\ \\
\hline
+ & 4 \ ? \ 0 \\
\hline
? & 2 \ ?
\end{array} \]
Question 4
Question 5
Question 6
Question 7

1 2 4
Question 9

0
1
2
3
4
5
6
7
8
9
10

0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0

L55
Elementary Math Mastery
Question 10
Question 11
Question 12
Question 13
Question 14
Question 15
Question 16
Question 17

\[ x = 100 - 5y \]

\[ y = 10 \]
Question 18
Question 19
Question 20
Question 1

7243

+ 293

L56
Question 2

72433
- 193
---
L56
Elementary Math Mastery
Question 3
Question 4
Question 6

\[ 27 \div 9 = 3 \]

\[ 3 \times 9 = 27 \]

L56

Elementary Math Mastery
Question 7
Question 8
Question 9
Question 10
Question 11
Question 12

L56
Question 13

\[
\begin{align*}
% & \quad 1\% = \frac{1}{100} \\
15\% & = \frac{15}{100}
\end{align*}
\]

L56
Elementary Math Mastery
Question 14

2 + 6 = 8
$10.10 - 4.10 = 6.00$

$6.00 - 10$ cents $= ?$
Question 16
Question 17

\[ x = 6y + 4 \]

\[ y = 2 \]
Question 18
Question 19

<table>
<thead>
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</tbody>
</table>
Question 20
Question 1

1232
+ 182
_____
L57
Question 2

1232

- 182

---

L57

Elementary Math Mastery
Question 3
Question 4
Question 5
Question 6

\[ 36 \div 4 = 9 \]
Question 7
Question 8
Question 9
Question 11
Question 12
Question 13

\[
\begin{align*}
1\% &= \frac{1}{100} \\
15\% &= \frac{15}{100}
\end{align*}
\]
Question 14

\[ 2 + 6 = 8 \]
Question 15

$10.20

- 4.20

$ 6.00

$6.00 − 20 cents = $\text{?}$.??
Question 17

\[ x = 2y + 4 \]

\[ y = 12 \]
Question 18
**Question 19**

**Bus departure timetable**

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</tbody>
</table>
Question 20
Question 1

2 3 2 3
Question 2

2 3 2 3 3
Question 3
Question 4
Question 5
Question 6

$$45 \div 9 = 5$$
Question 7
Question 8
Question 9
Question 10

1000 kg = 1 t
Question 11

- apex
- face
- edge
- vertex
Question 12

\[ A = l \times w \]

\[ 6 = 3 \times 2 \]
Question 13

% \quad 1\% = \frac{1}{100} \quad 15\% = \frac{15}{100}
Question 14

2 + 6 = 8
Question 15

$10.25 - 4.25 = 6.00$

$6.00 - 25$ cents $= \text{?}\text{.??}$
Question 16
Question 17

\[ x = 2y - 4 \]

\[ y = 12 \]
Question 18
Question 19

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</table>
Question 20
Question 1

4 1 3 4

L59

Elementary Math Mastery
Question 3
Question 4
Question 5
Question 6

\[\frac{18}{3} = 6\]
Question 7
Question 8
Question 9
Question 10

1000 kg = 1 t
Question 11
Question 12

A = l \times w
Question 13

\[ \% \quad 1\% = \frac{1}{100} \quad 15\% = \frac{15}{100} \]
Question 14

2 + 6 = 8
Question 15
Question 16

[Image of a clock showing the time 3:00]
Question 17

\[ x = \frac{2y}{4} \]

\[ y = 12 \]
Question 18
Question 19

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</table>
Question 20
Question 1

3 2 3 1
Question 2

3 2 3 1

L60

Elementary Math Mastery
Question 3
Question 4
Question 5
Question 6

\[ 21 \div 7 = 3 \]
Question 7
Question 9
1000 kg = 1 t
Question 11

Diagram of a pyramid with labels for apex, face, edge, and vertex.
Question 12

\[ A = l \times w \]

4 cm

2 cm
Question 13

\[
\% \quad 1\% = \frac{1}{100} \quad 15\% = \frac{15}{100}
\]
Question 14
Question 15
Question 16
Question 17

\[ x = 2y + 4 \]

\[ y = 15 \]
Question 18
## Question 19

### Bus Departure Timetable

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</tbody>
</table>
Question 20
Marathon 16
Question 1

4654
Question 2

4 6 5 4
Question 3

\[ \begin{array}{c}
2 & 4 & 3 \\
\times & 2 & 1 \\
\hline
2 & 4 & 3 \\
+ & 0 \\
\end{array} \]
Question 4
Question 5

112
Question 6
Question 7
Question 8
Question 9

\[ \frac{1}{1000} \]
Question 11
Question 12
Question 13
Question 14
Question 15
Question 16

1901
Question 17

\[ x = y + 4 \]

\[ x = 6 \]
Question 18
Question 19

Favourite shapes

- Hearts
- Squares
- Stars
- Crosses
Question 20
Question 1

5 4 3 2

L72
Elementary Math Mastery
Question 3

\[
\begin{array}{c}
2 \ 4 \ 3 \\
\times \ 2 \ 1 \\
\hline \\
2 \ 4 \ 3 \\
+ \ 0 \\
\hline 
\end{array}
\]
Question 4
Question 5

112
Question 7
Question 8
Question 9

\[ \frac{12}{100} \]
Question 11
Question 12
Question 13
Question 14
Question 16

1910

L72

Elementary Math Mastery
Question 17

\[ x = y + 4 \]

\[ x = 10 \]
Question 18
Question 19

Favourite shapes

Hearts

Squares

Crosses

Stars
Question 20
Marathon 17
Question 1

8 4 2 3
Question 2

8 4 2 3
Question 3
Question 5
Question 6
Question 7
Question 8
Question 9

\[
\frac{2}{10}
\]
1000 mL = 1 L
Question 11
Question 12
Question 13
Question 14
Question 15
Question 16

1999

L73

Elementary Math Mastery
Question 17

\[ x = 2y - 4 \]

\[ x = 10 \]
Question 18
Question 19

![Diagram showing favourite shapes: Hearts, Squares, Crosses, Stars]
Question 20
Question 1

9 2 3 4
Question 2

9 2 3 4
Question 3
Question 4
Question 5
Question 6
Question 8
Question 9

\[
\frac{90}{1000}
\]
Question 10

1000 mL = 1 L
Question 11
Question 12
Question 13
Question 14
Question 15
Question 16

1999
Question 17

\[ x = \frac{2y}{4} = 2 \]
Question 18
Question 19

![Favourite shapes diagram with sections for Hearts, Squares, and Crosses, and a larger section for Stars.]
Question 20
Marathon 18
Question 1

7 2 3 1
Question 3
Question 4
Question 5
Question 6
Question 7
Question 8
Question 9

\[ \frac{7}{100} \]
Question 10

1000 mL = 1 L
Question 11
Question 12
Question 13
Question 14
Question 15
Question 16

2000
Question 17

\[ x = 2y + 4 \]

\[ x = 10 \]
Question 18
Question 19

Favourite shapes

Hearts

Squares

Crosses

Stars
Question 1

2001
Question 2
Question 3
Question 4
Question 5
Question 6

1 \times 4 \times 2 = 308

1 \times 4 = 308 \div 2
Question 7
Question 8

\[ \frac{3}{2} = 1 \frac{1}{2} \]
Question 9
Question 10
Question 11
Question 12

![Diagram of shapes with dimensions 4 cm, 2 cm, and 2 cm]
Question 14
Question 15
Question 16
Question 17

\[2x = y + 4 - 2\]

\[x = 9\]
Question 18
Question 19

Favourite shapes

- Hearts
- Squares
- Crosses
- Stars
Question 20
Marathon 19
Question 1

70300
Question 2

70300

L77

Elementary Math Mastery
Question 3
Question 4
Question 5
Question 6

1 \times 4 \times 3 = 342

= 342 \div 3
Question 7
Question 8

\[
\frac{3}{2} = 1 \frac{1}{2}
\]
Question 9
Question 11
Question 12

Diagram showing a shape with dimensions: 5 cm x 6 cm, 12 cm x 3 cm, and a rectangle.
Question 13
Question 14
Question 16
Question 17

\[2x = y + 8 - 4\]

\[x = 12\]
Question 18

L77

Elementary Math Mastery
Question 19

Favourite shapes

Hearts

Squares

Crosses

Stars

L77
Elementary Math Mastery
Question 20
Question 1

9303
Question 2

9303
Question 3
Question 4
Question 5
Question 6

\[ 1 \times 4 \times 5 = 770 \]

\[ 1 \times 4 = 770 \div 5 \]
Question 7
Question 8

\[
\frac{3}{2} = 1 \frac{1}{2}
\]
Question 9
Question 10
Question 11
Question 12
Question 13
Question 14
Question 15
Question 16
Question 17

\[2x = 2y + 14 - 10\]

\[x = 12\]
Question 18
Favourite shapes

Hearts

Squares

Stars

Crosses

Question 19
Question 20
Marathon 20
Question 1

2084
Question 2

2084
Question 3
Question 4
Question 5
Question 6

$1 \times 4 \times 9 = 936$

$1 \times 4 = 936 \div 9$
Question 7
Question 8

\[ \frac{3}{2} = 1 \frac{1}{2} \]
Question 9
Question 11
Question 12

10 cm

9 cm

5 cm

5 cm
Question 13
Question 14
Question 15
Question 16
Question 17

$$2x = 2y + 4 + 2$$

$$x = 12$$
Question 18

![Thermometer Image]

L79

Elementary Math Mastery
Question 19

Favourite shapes

Hearts

Squares

Stars

Crosses
Question 1

3810
Question 2

3810
Question 3
Question 4
Question 5
Question 6

\[1 \times 4 \times 4 = 496\]

\[1 \times 4 = 496 \div 4\]
Question 7
Question 8

\[ \frac{3}{2} = 1 \frac{1}{2} \]
Question 9
Question 10
Question 11
Question 12

L80
Question 13
Question 14
Question 15
Question 16
Question 17

\[ 2x = 2y + 4 - 2 \]

\[ x = 15 \]
Question 18
Question 19

Favourite shapes

Hearts

Squares

Stars

Crosses

L80

Elementary Math Mastery
Question 20
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Thank you for your participation in the Math Mastery Series. The importance of the teacher’s role cannot be over-emphasised. Your feedback is much valued and appreciated.

Dr Rhonda Farkota
rhonda.farkota@acer.edu.au
Tel: (03) 9277 5627

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