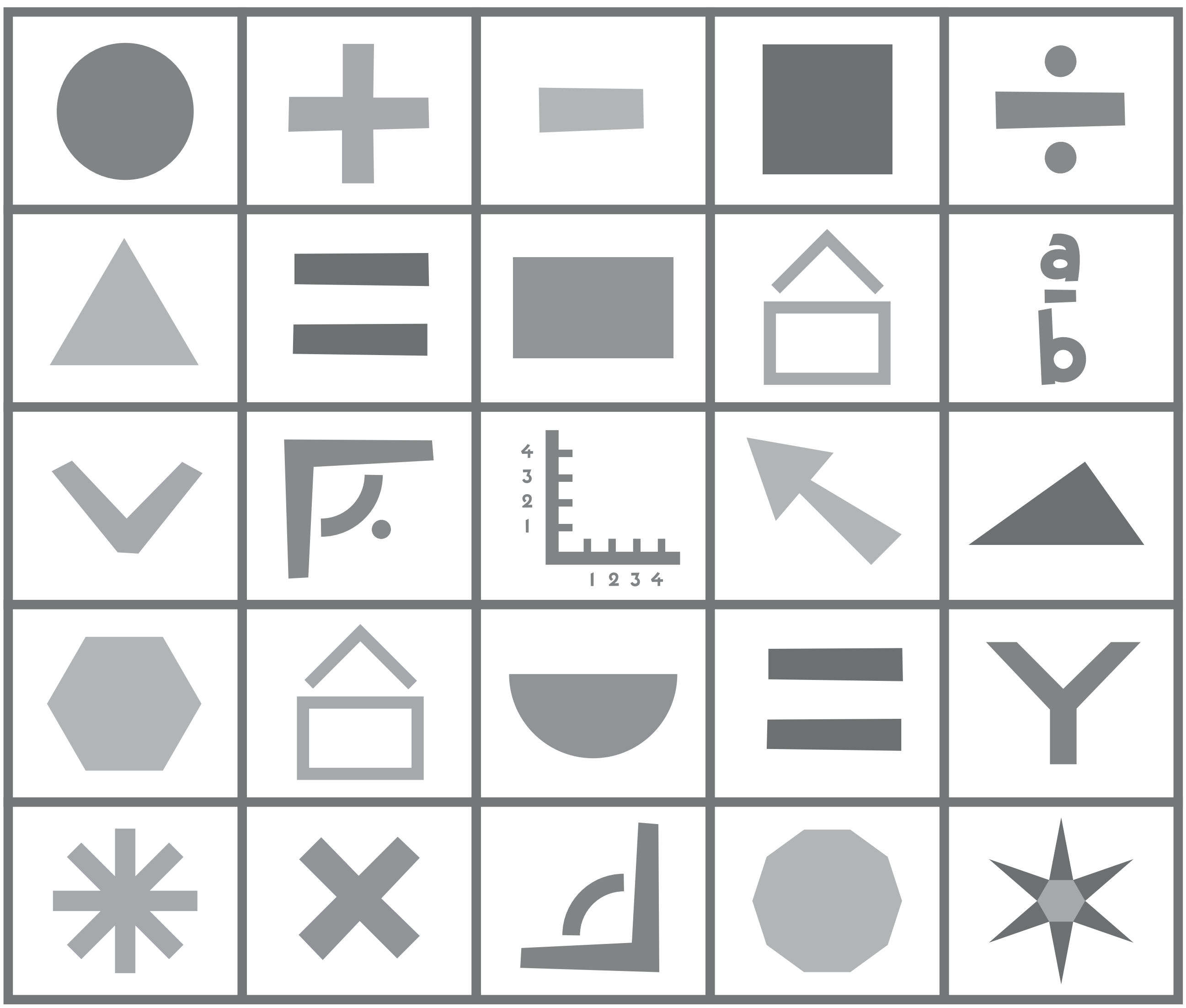
Daily Mental Math

Grade

9

MONDAY TUESDAY WEDNESDAY THURSDAY FRIDAY



Dr. Anne Paterson

Week 1

Day 1

1. $\sqrt{0.04}$ = _____
2. 0.1 + 0.1 = _____
3. 0.1 – 0.1 = _____
4. 0.1 × 0.1 = _____
5. 0.1 ÷ 0.1 = _____
6. 1×100^2 = _____
7. \$40 – \$2.85 = _____
8. Find the **mean** (average) for the set: 13, 14, 15, 16, 17. _____
9. At what **degree** angle do **perpendicular lines** meet? _____
10. _____ + _____ = $1\frac{1}{2}$
11. How many **faces** are there on a **tetrahedron**? _____
12. Six friends win \$1000 in a competition. They share this money equally. Each friend gets a whole dollar amount and a small amount is left over. How much does each friend get and how much is left over?

    _____
13. **Simplify** 20 : 30 : 40. _____
14. **Expand** $10(a + 3)$. _____
15. The **sum** of the number n and 15 is

    _____.
16. Twenty-five percent of \$200 is _____.
17. Four less than x is _____.
18. If a recipe calls for 300 mL water for 500 g of flour, how much water is needed for 750 g of flour? _____ mL
19. $\frac{1}{2}$ of 1% is _____.
20. 15 + 10 – 7 = _____

Score: /20 %

Day 2

1. Can $\sqrt{2}$ be a **whole number**? **Yes** **No**
2. 0.1 + 0.2 = _____
3. 0.1 – 0.2 = _____
4. 0.1 × 0.2 = _____
5. 0.1 ÷ 0.2 = _____
6. 1.0×100^2 = _____
7. \$16.20 + \$14.90 = _____
8. Find the **median** (average) for the set: 13, 14, 15, 16, 17. _____
9. Two **tetrahedrons** joined face-to-face make a

    _____.
10. Name any of the five **platonic solids**.

    _____
11. _____ – _____ = $1\frac{1}{2}$
12. Find the **ratio** of chocolate to puffed rice in this recipe: 250 g chocolate, 50 g puffed rice, 50 g butter, 50 g golden syrup.

    _____
13. **Simplify** 21 : 14 : 42. _____
14. **Expand** $5(c + 6)$.

    _____
15. **Subtract** five from the **product** of m and n.

    _____
16. **Reduce** \$250 by 40%. _____
17. **Factor** $3pq - 6p^2$. _____
18. **Express** 8 and y shared among four people.

    _____
19. $\frac{1}{4}$ of 1% is _____.
20. 400 – 4 × 9 = _____

Score: /20 %

Week 1

Day 3

1. $\sqrt{0.09}$ = _____ 2. 0.01 + 0.03 = _____
3. 0.1 – 0.3 = _____ 4. 0.1 × 0.3 = _____
5. **Express** 0.1 ÷ 0.3 as a **fraction**. _____
6. 36 × 100 = _____
7. The usual notation for **one and a half dollars** is _____.
8. The **range** of the set 12, 13, 13, 13.5, 14, 16, 16.5, 17 is _____.
9. Find the **circumference** of a circular sign if the **diameter** of the circle is 14 in. (Use $\pi = 3.14$.)

   _____
10. Find the **surface area** of a **cube** with sides 2 cm long. _____
11. The **prefix** for the value 10^3, whose **symbol** is k, is _____.
12. What is a **protractor** used to measure?

    _____
13. **Simplify** 22 : 33 : 44. _____
14. **Expand** $4(a + 3)$. _____
15. 12 + _____ = 25
16. Find 30% of \$900. _____
17. Write "five times the sum of 3 and m" as an **algebraic expression**. _____
18. If tennis balls cost \$2 each or \$7 for a can of four, how many cans must be bought to get one ball free? _____
19. Write **1.95 million** in numerals.

    _____
20. If $r = 12$, find the value of $r - 7$. _____

Score: /20 %

Day 4

1. $\sqrt{0.16}$ = _____ 2. 0.1 + 0.4 = _____
3. 0.1 – 0.4 = _____ 4. 0.1 × 0.4 = _____
5. **Express** 0.1 ÷ 0.4 as a **decimal**. _____
6. 45 × 100 = _____
7. The usual notation for **one and a quarter dollars** is _____.
8. The **mode** (average) for the set of scores: 11, 11, 12, 12, 12, 13, 15 is

   _____.
9. Find the **surface area** of a street sign with a **width** of 14 in. and **length** of 24 in.

   _____
10. Find the **surface area** of a cube with sides 1 cm long. _____
11. The **prefix** for the value 10^6, whose symbol is M, is _____.
12. What can a **compass** be used to measure?

    _____
13. **Simplify** 25 : 50 : 75. _____
14. **Expand** $3(a + 4)$. _____
15. 20 – _____ = 18
16. **Reduce** \$250 by 20%. _____
17. Name the mathematical instrument used to draw **circles**. _____
18. If fudge is sold at a **price** of four pieces for \$5 or \$1.20 per piece, which is the better deal?

    (a) 4 for \$5 (b) \$1.20 per piece
19. Write 400 million in **scientific notation**.

    _____
20. If $f = 3$, find the value of f^2. _____

Score: /20 %

Week 2

Day 1

1. $\sqrt{0.25}$ = _____
2. 0.1 + 0.5 = _____
3. 0.1 – 0.5 = _____
4. 0.1 × 0.5 = _____
5. **Express** 0.1 ÷ 0.5 as a **fraction**. _____
6. **Double** 135,000. _____
7. The usual notation for **one and a third dollars** (rounded down) is _____.
8. The adjective used to describe the shape of a **cylinder** is _____.
9. Find the **weight** of a rabbit if the combined weight of a child and the rabbit is 57.5 kg and the weight of just the child is 56.2 kg.

   _____
10. Find the **surface area** of a **cube** with sides 5 in. long. _____
11. The **prefix** for the value 10^9, whose **symbol** is G, is _____.
12. How many **years** were there between 1200 BCE and 60 CE? _____
13. **Simplify** 12 : 24 : 36. _____
14. **Expand** $2(b + 5)$. _____
15. **Express** 1000 in **Roman numerals**. _____
16. Find 40% of $900. _____
17. If the **probability** of throwing a three with a die is $\frac{1}{6}$, the probability of not throwing a three is _____.
18. Train tracks run _____ to each other.
19. Write 2.48 million in **digits**. _____
20. If $b = 7$, find the value of $\frac{4b}{14}$. _____

Score: /20 %

Day 2

1. **Simplify** $4^2 \times 4^3$. _____
2. 0.1 + 0.6 = _____
3. 0.1 – 0.6 = _____
4. 0.1 × 0.6 = _____
5. **Express** 0.1 ÷ 0.6 as a **fraction**. _____
6. **Halve** 135,000. _____
7. The usual notation for **one and two-thirds of a dollar** (rounded up) is _____.
8. The adjective used to describe the shape of a **cube** is _____.
9. The **weight** of a substance and the beaker it is in is 166.70 g. If the weight of the beaker is 125.50 g, what is the weight of the substance?

   _____
10. How many **sides** of equal length does a **dodecagon** have? _____
11. The **prefix** for the value 10^{-3}, whose **symbol** is m, is _____.
12. How many **years** were there between 900 BCE and 620 CE? _____
13. **Simplify** 12 : 14 : 16. _____
14. **Expand** $3(x + 2)$. _____
15. **Express** 999 in **Roman numerals**. _____
16. **Reduce** $250 by 10%. _____
17. If the **probability** of throwing a number less than three with a die is $\frac{1}{3}$, the probability of throwing a three or more is _____.
18. How many **faces** are there on a **dodecahedron**? _____
19. Write 3.59 million in **digits**. _____
20. If $f = 3$, find the value of $3f$. _____

Score: /20 %

Week 2

Day 3

1. **Simplify** $\sqrt{{}^{25}/_{16}}$. _____
2. 0.1 + 0.7 = _____
3. 0.1 – 0.7 = _____ 4. 0.1 × 0.7 = _____
5. **Express** 0.1 ÷ 0.7 as a **fraction**. _____
6. **Double** 215,000. _____
7. The usual notation for **one and two-fifths of a dollar** is _____.
8. The adjective used to describe the **shape** of an **oval** is _____.
9. Find the **weight** of a pet cat if the combined weight of a child and the cat is 57.5 kg and the weight of just the child is 53.9 kg.

   _____
10. Find the **surface area** of a **cube** with sides 3 in. long. _____
11. The **prefix** for the value 10^{-6}, whose **symbol** is μ, is _____.
12. For a **right triangle** where the lengths of two legs are 3 in. and 4 in., find the length of the **hypotenuse**. _____
13. **Simplify** 3 : 6 : 9. _____
14. **Expand** $3(x + 2)$. _____
15. How many sides of equal length does a **scalene triangle** have? _____
16. Express 1001 in **Roman numerals**. _____
17. If the **probability** of throwing a score of seven with two dice is ${}^{1}/_{6}$, what is the probability of not throwing a score of seven? _____
18. Solve $7^2 + 7^2$. _____
19. Find 25% of $900. _____
20. If $i = 8$, find the value of ${}^{6i}/_{12}$. _____

Score: /20 %

Day 4

1. $5^3 \div 5^2$ = _____ 2. 0.1 + 0.8 = _____
3. 0.1 – 0.8 = _____ 4. 0.1 × 0.8 = _____
5. **Express** 0.1 ÷ 0.8 as a **fraction**. _____
6. **Halve** 215,000. _____
7. The usual notation for **two and three-fifths of a dollar** is _____.
8. The adjective used to describe the shape of a **circle** is _____.
9. Find the **weight** of a cocker spaniel dog if the combined weight of owner and dog is 79.5 kg and the weight of the owner is 64.5 kg.

   _____
10. Find the **surface area** of a **cube** with sides 4 in. long. _____
11. The **prefix** for the value 10^{-9}, whose **symbol** is n, is _____.
12. Find the **diagonal length** of a **rectangle** with side lengths of 4 cm and 3 cm. _____
13. **Simplify** 6 : 12 : 18. _____
14. **Expand** $4(e + 7)$. _____
15. How many **congruent sides** does a **scalene triangle** have? _____
16. Express 1002 in **Roman numerals**. _____
17. If the **probability** of throwing a **score total** of two with two dice is ${}^{1}/_{36}$, what is the probability of not throwing a score total of two? _____
18. Solve $5^2 \times 5^2$. _____
19. **Reduce** $300 by 40%. _____
20. If $j = 10$, find the value of $44j$. _____

Score: /20 %