# Home School Partners
# Math Tips, Tricks & Mental Calculations – Week 1

**(Note: The number in parentheses by each practice problem indicates the trick number used to solve it.)**

| Day 1 | Day 2 | Day 3 | Day 4 |
|---|---|---|---|
| 1. 90 • 90 (1) | 1. 300 • 90 (1) | 1. 8,400 ÷ 120 (1) | 1. 90 • 60 (1) |
| 2. 360 ÷ 9 (1) | 2. 810 ÷ 9 (1) | 2. 700 • 90 (1) | 2. 8,800 ÷ 80 (1) |
| 3. 800 • 60 (1) | 3. 70 • 800 (1) | 3. 320 ÷ 8 (1) | 3. 70 • 70 (1) |
| 4. 1,440 ÷ 12 (1) | 4. 13,200 ÷ 12 (1) | 4. 1,100 • 50 (1) | 4. 4,200 ÷ 60 (1) |
| 5. 50 • 120 (1) | 5. 80 • 80 (1) | 5. 4,800 ÷ 40 (1) | 5. 110 • 120 (1) |
| 6. 1.1 • 1.1 (2) | 6. 0.4 • 9 (2) | 6. 70 • 0.6 (2) | 6. 0.9 • 5,000 (2) |
| 7. 44 ÷ 1.1 (2) | 7. 8.4 ÷ 12 (2) | 7. 60 ÷ 1.2 (2) | 7. 0.4 • 700 (2) |
| 8. 0.8 • 12 (2) | 8. 700 • 0.7 (2) | 8. 80 • 0.7 (2) | 8. 7.2 ÷ 12 (2) |
| 9. 6.3 ÷ 7 (2) | 9. 6.4 ÷ 8 (2) | 9. 9.6 ÷ 12 (2) | 9. 7,000 • 0.3 (2) |
| 10. In one day, Carolina Ernie Dodge loaded 16 tons of coal from the mine. If a ton is 2,000 lbs., how many lbs. of coal did Carolina Ernie load? (1) | 10. Ed had $36,000 extra to spread among 90 of his employees. If he spread the extra money equally, how much did each employee receive? (1) | 10. Each of Reverence Grace's 9 children ate 0.8 ounces of peanut butter at supper one day. How many total ounces did they eat? (2) | 10. An egg farmer plants 70 rows, using 7,700 seeds. If he plants an equal number of seeds in each row, how many seeds will each row get? (1) |

**Math Tips, Tricks & Mental Calculations – Week 1 Key**

| Day 1 | Day 2 | Day 3 | Day 4 |
|---|---|---|---|
| 1. 8,100 | 1. 27,000 | 1. 70 | 1. 5,400 |
| 2. 40 | 2. 90 | 2. 63,000 | 2. 110 |
| 3. 48,000 | 3. 56,00 | 3. 40 | 3. 4,900 |
| 4. 120 | 4. 1,100 | 4. 55,000 | 4. 70 |
| 5. 6,000 | 5. 6,400 | 5. 120 | 5. 13,200 |
| 6. 1.21 | 6. 3.6 | 6. 42 | 6. 4,500 |
| 7. 40 | 7. 0.7 | 7. 50 | 7. 280 |
| 8. 9.6 | 8. 490 | 8. 56 | 8. 0.6 |
| 9. 0.9 | 9. 0.8 | 9. 0.8 | 9. 2,100 |
| 10. 32,000 lbs. | 10. $400 | 10. 7.2 oz. | 10. 110 seeds |

# Home School Partners
# Math Tips, Tricks & Mental Calculations – Week 2

| Day 1 | Day 2 | Day 3 | Day 4 |
|---|---|---|---|
| 1. 60 • 40 (1) | 1. 5,000 • 80 (1) | 1. 72,000 ÷ 60 (1) | 1. 12,000 • 30 (1) |
| 2. 3,500 ÷ 70 (1) | 2. 630,000 ÷ 70 (1) | 2. 7,000 • 4,000 (1) | 2. 99,000 ÷ 900 (1) |
| 3. 300 • 50 (1) | 3. 400 • 8,000 (1) | 3. 3,200 ÷ 40 (1) | 3. 5,600 ÷ 70 (1) |
| 4. 0.8 • 9 (2) | 4. 2,000 • 0.3 (2) | 4. 20,000 • 0.003 (3) | 4. 400,000 • 0.09 (2) |
| 5. 990 ÷ 1.1 (2) | 5. 720 ÷ 0.8 (2) | 5. 8,800 ÷ 0.8 (2) | 5. 5,600 ÷ 0.8 (2) |
| 6. 800 • 0.03 (3) | 6. 1,000 • 0.04 (3) | 6. 10,000 • 0.04 (3) | 6. 90,000 • 0.07 (3) |
| 7. 4,000 • 0.02 (3) | 7. 60,000 • 0.06 (3) | 7. 200,000 • 0.02 (3) | 7. 1,200 • 0.9 (3) |
| 8. Convert 0.85 to a % and fraction. (4) | 8. Convert 6/25 to a % and a decimal. (4) | 8. Convert 7/25 to a % and a decimal. (4) | 8. Convert 0.275 to a % and fraction. (4). |
| 9. Convert 35% to a decimal and a fraction. (4) | 9. Convert 65% to a decimal and a fraction. (4) | 9. Convert 95% to a decimal and a fraction. (4) | 9. Convert 86% to a decimal and a fraction. (4) |
| 10. Jane filled 600 bottles. Each bottle held .09 oz.; how many oz. were needed? (3) | 10. Ann knew 45% of the quiz answers. Convert this to a fraction and a decimal. (4) | 10. Sue had 8,400 oz.; each bottle held 0.7 oz. How many bottles can she fill? (2) | 10. Al sold 96% of his pet goats. Convert this to a fraction and a decimal. (4) |

**Math Tips, Tricks & Mental Calculations – Week 2 Key**

| Day 1 | Day 2 | Day 3 | Day 4 |
|---|---|---|---|
| 1. 2,400 | 1. 400,000 | 1. 1,200 | 1. 360,000 |
| 2. 50 | 2. 9,000 | 2. 28,000,000 | 2. 110 |
| 3. 15,000 | 3. 3,200,000 | 3. 80 | 3. 80 |
| 4. 7.2 | 4. 600 | 4. 60 | 4. 36,000 |
| 5. 900 | 5. 900 | 5. 11,000 | 5. 7,000 |
| 6. 24 | 6. 40 | 6. 400 | 6. 6,300 |
| 7. 80 | 7. 3,600 | 7. 4,000 | 7. 1,080 |
| 8. 85%, 17/20 | 8. 24%, .24 | 8. 28%, .28 | 8. 27.5%, 11/40 |
| 9. .35, 7/20 | 9. .65, 13/20 | 9. .95, 19/20 | 9. .86, 43/50 |
| 10. 54 oz. | 10. 9/20, .45 | 10. 12,000 | 10. 24/25, .96 |

Reminder: Pop Quiz 1
is in class next week!

# Home School Partners
# Math Tips, Tricks & Mental Calculations – Week 3

| Day 1 | Day 2 | Day 3 | Day 4 |
|---|---|---|---|
| 1.  900 • 3,000 (1) _____ | 1.  400,000 • 200 (1) _____ | 1.  28 • 7 (5) _____ | 1.  42 • 6 (5) _____ |
| 2.  360,000 ÷ 600 (1) _____ | 2.  630,000 ÷ 70 (1) _____ | 2.  280 • 70 (5) _____ | 2.  4.2 • 600 (5) _____ |
| 3.  7,000 • 0.6 (2) _____ | 3.  50,000 • 0.09 (2) _____ | 3.  36,000 ÷ 90 (1) _____ | 3.  8,000 • 90,000 (1) _____ |
| 4.  840 ÷ 1.2 (2) _____ | 4.  720 ÷ 0.8 (2) _____ | 4.  200,000 • 0.001 (3) _____ | 4.  800,000 • 0.004 (3) _____ |
| 5.  8,000 • 0.02 (3) _____ | 5.  60,000 • 0.02 (3) _____ | 5.  88,000 ÷ 1.1 (2) _____ | 5.  84,000 ÷ 1.2 (2) _____ |
| 6.  10,000 • 0.05 (3) _____ | 6.  1,000,000 • 0.01 (3) _____ | 6.  10,000 • 0.006 (3) _____ | 6.  100,000 • 0.005 (3) _____ |
| 7.  Convert 12.5% to a decimal and a fraction. (4) _____ | 7.  Convert 82.5% to a decimal and a fraction. (4) _____ | 7.  Convert 44% to a fraction and a decimal. (4) _____ | 7.  Convert 0.52 to a percent and a fraction. (4) _____ |
| 8.  84 • 3 (5) _____ | 8.  37 • 6 (5) _____ | 8.  74 • 3 (5) _____ | 8.  48 • 4 (5) _____ |
| 9.  8.4 • 3 (6) _____ | 9.  3.7 • 6 (6) _____ | 9.  0.74 • 3 (6) _____ | 9.  480 • 4 (6) _____ |
| 10.  Jack laid 5,000 hairs end to end. Each hair was 0.004 feet long. How long was the line of hairs? (3) _____ | 10.  Each box held 3.7 lbs. of lemons. How many lbs. of lemons are there in 600 boxes? (6) _____ | 10.  Diana saw 0.375 of the birds on her newly washed car. Convert this to a percent and to a fraction. (4) _____ | 10.  Chuck laid 16% of the foundation of the house. Convert this to a decimal and to a fraction. (4) _____ |

**Math Tips, Tricks & Mental Calculations – Week 3 Key**

| Day 1 | Day 2 | Day 3 | Day 4 |
|---|---|---|---|
| 1. 2,700,000 | 1. 80,000,000 | 1. 196 | 1. 252 |
| 2. 600 | 2. 9,000 | 2. 19,600 | 2. 2,520 |
| 3. 4,200 | 3. 4,500 | 3. 400 | 3. 720,000,000 |
| 4. 700 | 4. 900 | 4. 200 | 4. 3,200 |
| 5. 160 | 5. 1,200 | 5. 80,000 | 5. 70,000 |
| 6. 500 | 6. 10,000 | 6. 60 | 6. 500 |
| 7. .125, 1/8 | 7. .825, 33/40 | 7. 11/25, .44 | 7. 52%, 13/25 |
| 8. 252 | 8. 222 | 8. 222 | 8. 192 |
| 9. 25.2 | 9. 22.2 | 9. 2.22 | 9. 1,920 |
| 10. 20 ft. | 10. 2,220 | 10. 37.5%, 3/8 | 10. .16, 4/25 |

Reminder:
Pop Quiz 2 is next week!

# Home School Partners
# Math Tips, Tricks & Mental Calculations – Week 4

| Day 1 | Day 2 | Day 3 | Day 4 |
|---|---|---|---|
| 1. 200 • 20,000 (1) <br> _____ | 1. 400,000 • 200 (1) <br> _____ | 1. 38 • 7 (5) <br> _____ | **Quiz 1!** <br> Take Quiz 1! Remember, do not use a calculator! Perform all of the calculations *mentally*. |
| 2. 7,000 • 0.6 (2) <br> _____ | 2. 810 ÷ 0.9 (2) <br> _____ | 2. 380 • 70 (5) <br> _____ | |
| 3. 60,000 • 0.08 (3) <br> _____ | 3. 80,000 • 0.0008 (3) <br> _____ | 3. 500,000 • 0.0001 (3) <br> _____ | |
| 4. Convert 72.5% to a decimal and a fraction. (4) <br> _____ | 4. Convert 0.76 to a percent and a fraction. (4) <br> _____ | 4. Convert 87.5% to a decimal and a fraction. (4) <br> _____ | |
| 5. 38 • 5 (5) <br> _____ | 5. 26 • 7 (5) <br> _____ | 5. 82 • 6 (5) <br> _____ | |
| 6. 3.8 • 5 (6) <br> _____ | 6. 260 • 7 (6) <br> _____ | 6. 8.2 • 6 (6) <br> _____ | |
| 7. 3,800 • 0.5 (6) <br> _____ | 7. 2.6 • 0.7 (6) <br> _____ | 7. 820 • 6 (6) <br> _____ | |
| 8. 60% of 400 (7) <br> _____ | 8. 90% of 300 (7) <br> _____ | 8. 30% of 5,000 (7) <br> _____ | |
| 9. 70% of 2,000 (7) <br> _____ | 9. 40% of 1,100 (7) <br> _____ | 9. 20% of 11,000 (7) <br> _____ | |
| 10. Larry sold 80% of the 2,000 used hankies. How many used hankies did he sell? (7) <br> _____ | 10. Julie saved 42.5% on essential oils. Convert this to a decimal and to a fraction. (4) <br> _____ | 10. Bob saw 20% of the 12,000 people in the neighborhood. How many did he see? (7) <br> _____ | |

**Math Tips, Tricks & Mental Calculations – Week 4 Key**

## Day 1

1.  4,000,000
2.  4,200
3.  4,800
4.  .725, 29/40
5.  190
6.  19
7.  1,900
8.  240
9.  1,400
10. 1,600 pairs

## Day 2

1.  80,000,000
2.  900
3.  64
4.  76%, 19/25
5.  182
6.  1,820
7.  1.82
8.  270
9.  440
10. .425, 17/40

## Day 3

1.  266
2.  26,600
3.  50
4.  .875, 7/8
5.  492
6.  49.2
7.  4,920
8.  1,500
9.  2,200
10. 2,400 people

## Day 4

Check your Quiz 1
against the key!

Reminder:
Pop Quiz 3 is next week!

# Home School Partners
# Math Tips, Tricks & Mental Calculations – Week 5

| Day 1 | Day 2 | Day 3 | Day 4 |
|-------|-------|-------|-------|
| 1. 400 • 300,000 (1) _____ | 1. 360,000 ÷ 600 (1) _____ | 1. 43 • 5 (5) _____ | 1. 52 • 8 (5) _____ |
| 2. 9,000 • 0.6 (2) _____ | 2. 10.800 ÷ 9 (2) _____ | 2. 430 • 50 (5) _____ | 2. 5.2 • 800 (5) _____ |
| 3. 110,000 • 0.03 (3) _____ | 3. 70,000 • 0.07 (3) _____ | 3. 200,000 • 0.0006 (3) _____ | 3. 300,000 • 0.004 (3) _____ |
| 4. Convert 3/20 to a decimal and a %. (4) _____ | 4. Convert .72 to a % and a fraction. (4) _____ | 4. Convert 39/40 to a decimal and a %. (4) _____ | 4. Convert 82% to a decimal and a fraction. (4) _____ |
| 5. 36 • 4 (5) _____ | 5. 41 • 7 (5) _____ | 5. 62 • 8 (5) _____ | 5. 84 • 3 (5) _____ |
| 6. 3,600 • 4 (6) _____ | 6. 410 • 7 (6) _____ | 6. 6.2 • 8 (6) _____ | 6. 840 • 3 (6) _____ |
| 7. 3.6 • 0.4 (6) _____ | 7. 4.1 • 0.7 (6) _____ | 7. 620 • 8 (6) _____ | 7. 8.4 • 0.3 (6) _____ |
| 8. 40% of 6,000 (7) _____ | 8. 80% of 12,000 (7) _____ | 8. 60% of 50,000 (7) _____ | 8. 30% of 120,000 (7) _____ |
| 9. 72% of 3,000 (8) _____ | 9. 41% of 7,000 (8) _____ | 9. 62% of 8,000 (8) _____ | 9. 84% of 3,000 (8) _____ |
| 10. Ty tagged 72% of the 300 birds before they pecked him to death. How many birds did he tag? (8) _____ | 10. Bill made $23 every day for a week. How much money did he make that week? (5) _____ | 10. Sara sold 62% of her 800 eggs. How many eggs did she sell? (8) _____ | 10. Ian used 8.4 gallons of sugar per day for 30 days. How many gallons did he use over the 30 days? (6) _____ |

**Math Tips, Tricks & Mental Calculations – Week 5 Key**

| Day 1 | Day 2 | Day 3 | Day 4 |
|---|---|---|---|
| 1. 120,000,000 | 1. 600 | 1. 215 | 1. 416 |
| 2. 5,400 | 2. 1.2 | 2. 21,500 | 2. 4,160 |
| 3. 3,300 | 3. 4,900 | 3. 120 | 3. 1,200 |
| 4. .15, 15% | 4. 72%, 18/25 | 4. .975, 97.5% | 4. .82, 41/50 |
| 5. 144 | 5. 287 | 5. 496 | 5. 252 |
| 6. 14,400 | 6. 2,870 | 6. 49.6 | 6. 2,520 |
| 7. 1.44 | 7. 2.87 | 7. 4,960 | 7. 2.52 |
| 8. 2,400 | 8. 9,600 | 8. 30,000 | 8. 36,000 |
| 9. 2,160 | 9. 2,870 | 9. 4,960 | 9. 2,520 |
| 10. 216 | 10. $161 | 10. 496 | 10. 252 |

Reminder:
Pop Quiz 4 is next week!

# Home School Partners
# Math Tips, Tricks & Mental Calculations – Week 6

| Day 1 | Day 2 | Day 3 | Day 4 |
|---|---|---|---|
| 1. 7,000 • 0.02 (3) _____ | 1. 960,000 ÷ 1,200 (1) _____ | 1. 30,000 • 0.05 (3) _____ | **Quiz 2!** Take Quiz 2! Remember, do not use a calculator! Perform all of the calculations *mentally*. |
| 2. Convert 11/12 to a decimal (to three digits) and a %. (4) _____ | 2. 6,000 • 0.4 (2) _____ | 2. Convert .35 to a % and a fraction. (4) _____ | |
| 3. 64 • 5 (5) _____ | 3. 38 • 5 (5) _____ | 3. 86 • 3 (5) _____ | |
| 4. 6.4 • 5 (6) _____ | 4. 380 • 50 (6) _____ | 4. 8.6 • 3 (6) _____ | |
| 5. 6.4 • 500 (6) _____ | 5. .38 • 5 (6) _____ | 5. 860 • 30 (6) _____ | |
| 6. 90% of 400 (7) _____ | 6. 60% of 2,000 (7) _____ | 6. 20% of 500 (7) _____ | |
| 7. 82% of 4,000 (8) _____ | 7. 43% of 3,000 (8) _____ | 7. 34% of 2,000 (8) _____ | |
| 8. 20% of what number is 25? (9) _____ | 8. 40% of what number is 60? (9) _____ | 8. 22% of what number is 110? (9) _____ | |
| 9. What number is 35% of 80? (9) _____ | 9. What number is 72% of 75? (9) _____ | 9. What number is 26% of 50? (9) _____ | |
| 10. 40 is what percent of 250? (9) _____ | 10. 72 is what percent of 90? (9) _____ | 10. Jack shelled 243 of the 300 peanuts before developing arthritis. What percent did he shell? (9) _____ | |

**Math Tips, Tricks & Mental Calculations – Week 6 Key**

| Day 1 | Day 2 | Day 3 | Day 4 |
|-------|-------|-------|-------|
| 1.  140 | 1.  800 | 1.  1,500 | Check your Quiz 2 against the key! |
| 2.  .916 (or .917), 91.7% | 2.  2,400 | 2.  35%, 7/20 | |
| 3.  320 | 3.  190 | 3.  258 | Reminder: Pop Quiz 5 is next week! |
| 4.  32 | 4.  19,000 | 4.  25.8 | |
| 5.  3,200 | 5.  1.9 | 5.  25,800 | |
| 6.  360 | 6.  1,200 | 6.  100 | |
| 7.  3,280 | 7.  1,290 | 7.  680 | |
| 8.  125 | 8.  150 | 8.  500 | |
| 9.  28 | 9.  54 | 9.  13 | |
| 10.  16% | 10.  80% | 10.  81% | |

# Home School Partners
# Math Tips, Tricks & Mental Calculations – Week 7

| Day 1 | Day 2 | Day 3 | Day 4 |
|---|---|---|---|
| 1. 600 • 0.04 (3) | 1. 12,000,000 ÷ 600 (1) | 1. 30,000 • 0.003 (3) | 1. 60,000 ÷ 100 (1) |
| 2. Convert 3/7 to a decimal (to three digits) and a %. (4) | 2. 3,000 • 0.8 (2) | 2. Convert 7/9 to a decimal (to three digits) and a %. (4) | 2. 810,000 ÷ 0.9 (2) |
| 3. 73 • 8 (5) | 3. 88 • 4 (5) | 3. 92 • 4 (5) | 3. 74 • 5 (5) |
| 4. 7.3 • 0.8 (6) | 4. .88 • 0.4 (6) | 4. 9.2 • 400 (6) | 4. 740 • 50 (6) |
| 5. 90% of 60,000 (7) | 5. 40% of 12,000 (7) | 5. 70% of 11,000 (7) | 5. .74 • 5 (6) |
| 6. 24% of 3,000 (8) | 6. 27% of 2,000 (8) | 6. 77% of 3,000 (8) | 6. 40% of 11,000 (7) |
| 7. 85% of what number is 34? (9) | 7. 32% of what number is 24? (9) | 7. 44% of what number is 66? (9) | 7. 63% of 2,000 (8) |
| 8. What number is 65% of 120? (9) | 8. What number is 70% of 420? (9) | 8. What number is 52% of 700? (9) | 8. 75% of what number is 48? (9) |
| 9. 66 is what percent of 220? (9) | 9. 96 is what percent of 160? (9) | 9. 42 is what percent of 105? (9) | 9. What number is 88% of 125? (9) |
| 10. How much is a 15% tip on a $26 bill? (10) | 10. How much is a 15% tip on a $46 bill? (10) | 10. How much is a 15% tip on a $80 bill? (10) | 10. Piety Grace made shoes from 80 of the 250 pumpkins. What percent of the pumpkins did she turn into shoes? (9) |

**Math Tips, Tricks & Mental Calculations – Week 7 Key**

| Day 1 | Day 2 | Day 3 | Day 4 |
|-------|-------|-------|-------|
| 1.  24 | 1.  20,000 | 1.  90 | 1.  600 |
| 2.  .428 (or .429), 42.9% | 2.  2400 | 2.  .777 (or .778), 77.8% | 2.  900,000 |
| 3.  584 | 3.  352 | 3.  368 | 3.  370 |
| 4.  5.84 | 4.  .352 | 4.  3,680 | 4.  37,000 |
| 5.  54,000 | 5.  4,800 | 5.  7,700 | 5.  3.7 |
| 6.  720 | 6.  540 | 6.  2,310 | 6.  4,400 |
| 7.  40 | 7.  75 | 7.  150 | 7.  1,260 |
| 8.  78 | 8.  294 | 8.  364 | 8.  64 |
| 9.  30% | 9.  60% | 9.  40% | 9.  110 |
| 10.  $3.90 | 10.  $6.90 | 10.  $12 | 10.  32% |

Reminder:
Pop Quiz 6 is next week!

# Home School Partners
# Math Tips, Tricks & Mental Calculations – Week 8

| Day 1 | Day 2 | Day 3 | Day 4 |
|---|---|---|---|
| 1. 2,000 • 0.03 (3) <br> _____ | 1. 110,000 ÷ 100 (1) <br> _____ | 1. 80,000 • 0.001 (3) <br> _____ | **Quiz 3!** <br> Take Quiz 3! Remember, do not use a calculator! Perform all of the calculations *mentally*. |
| 2. Convert 7/11 to a decimal (to three digits) and a %. (4) <br> _____ | 2. 540,000 ÷ 900 (1) <br> _____ <br><br> 3. 28 • 4 (5) <br> _____ | 2. Convert 96% to a decimal and a fraction. (4) <br> _____ | |
| 3. 46 • 8 (5) <br> _____ | 4. .28 • 0.4 (6) <br> _____ | 3. 52 • 9 (5) <br> _____ | |
| 4. 4.6 • 0.8 (6) <br> _____ | 5. 30% of 30,000 (7) <br> _____ | 4. 5.2 • 900 (6) <br> _____ | |
| 5. 60% of 700,000 (7) <br> _____ | 6. 37% of 4,000 (8) <br> _____ | 5. 40% of 9,000 (7) <br> _____ | |
| 6. 36% of 8,000 (8) <br> _____ | 7. 36% of what number is 27? (9) <br> _____ | 6. 59% of 4,000 (8) <br> _____ | |
| 7. 45% of what number is 36? (9) <br> _____ | 8. 56 is what percent of 280? (9) <br> _____ | 7. 12% of what number is 72? (9) <br> _____ | |
| 8. 84 is what percent of 105? (9) <br> _____ | 9. How much is a 15% tip on a $300 bill? (10) <br> _____ | 8. 70 is what percent of 175? (9) <br> _____ | |
| 9. How much is a 15% tip on a $32 bill? (10) <br> _____ | 10. What is the total cost of a $600 guitar if the sales tax is 5%? (11) <br> _____ | 9. How much is a 15% tip on a $20 bill? (10) <br> _____ | |
| 10. What is the total cost of an $800 fancy coffee shop latté if sales tax is 7%? (11) <br> _____ | | 10. What is the total cost of a $400 set of tires if a 3% "tire tax" is added? (11) <br> _____ | |

**Math Tips, Tricks & Mental Calculations – Week 8 Key**

| Day 1 | Day 2 | Day 3 | Day 4 |
|---|---|---|---|
| 1. 60 | 1. 1,100 | 1. 80 | Check your Quiz 3 against the key! |
| 2. .636, 63.6% | 2. 600 | 2. .96, 24/25 | |
| 3. 368 | 3. 112 | 3. 468 | Reminder: Pop Quiz 7 is next week! |
| 4. 3.68 | 4. .112 | 4. 4,680 | |
| 5. 420,000 | 5. 9,000 | 5. 3,600 | |
| 6. 2,880 | 6. 1,480 | 6. 2,360 | |
| 7. 80 | 7. 75 | 7. 600 | |
| 8. 80% | 8. 20% | 8. 40% | |
| 9. $4.80 | 9. $45 | 9. $3 | |
| 10. $856 | 10. $630 | 10. $412 | |

# Home School Partners
# Math Tips, Tricks & Mental Calculations – Week 9

| Day 1 | Day 2 | Day 3 | Day 4 |
|---|---|---|---|
| 1. $50,000 \cdot 0.01$ (3) _____ | 1. $900,000 \div 100$ (1) _____ | 1. $50,000 \cdot 0.002$ (3) _____ | 1. $7,000,000 \div 700$ (1) _____ |
| 2. Convert 5/6 to a decimal (to three digits) and a %. (4) _____ | 2. $480,000 \div 0.6$ (2) _____ | 2. Convert .675 to a % and a fraction. (4) _____ | 2. $630 \div 0.9$ (2) _____ |
| 3. $26 \cdot 5$ (5) _____ | 3. $33 \cdot 4$ (5) _____ | 3. $72 \cdot 8$ (5) _____ | 3. $56 \cdot 5$ (5) _____ |
| 4. $2.6 \cdot 0.5$ (6) _____ | 4. $33 \cdot 0.4$ (6) _____ | 4. $7.2 \cdot 800$ (6) _____ | 4. $.56 \cdot 5$ (6) _____ |
| 5. 50% of 300,000 (7) _____ | 5. 67% of 3,000 (8) _____ | 5. 90% of 90,000 (7) _____ | 5. 10% of 200,000 (7) _____ |
| 6. 46% of 2,000 (8) _____ | 6. 26% of what number is 13? (9) _____ | 6. 39% of 5,000 (8) _____ | 6. 65% of 4,000 (8) _____ |
| 7. 52% of what number is 104? (9) _____ | 7. 80 is what percent of 250? (9) _____ | 7. 16% of what number is 48? (9) _____ | 7. 60% of what number is 75? (9) _____ |
| 8. How much is a 15% tip on a $62 bill? (10) _____ | 8. How much is a 15% tip on a $400 bill? (10) _____ | 8. How much is a 15% tip on a $64 bill? (10) _____ | 8. 40 is what percent of 250? (9) _____ |
| 9. Give the total cost of a $40 pair of socks if sales tax is 8%. (11) _____ | 9. What is the total cost of a $600 phone if sales tax is 7%? (11) _____ | 9. Give the total cost of a $26 pen, including a 6% sales tax. (11) _____ | 9. How much is a 15% tip on a $60 bill? (10) _____ |
| 10. Find the price of a $500 couch, marked down 60%. (12) _____ | 10. How much is a $70 coat if it's been discounted 30%? (12) _____ | 10. Hezekiah purchased a new flamethrower for 40% off the original price of $2,300. How much did he pay? (12) _____ | 10. Give the total cost of a fancy $30 wedding ring if an 8% sales tax is added. (11) _____ |

**Math Tips, Tricks & Mental Calculations – Week 9 Key**

| Day 1 | Day 2 | Day 3 | Day 4 |
|---|---|---|---|
| 1. 500 | 1. 9,000 | 1. 100 | 1. 10,000 |
| 2. .833, 83.3% | 2. 800,000 | 2. 67.5%, 27/40 | 2. 700 |
| 3. 130 | 3. 132 | 3. 576 | 3. 280 |
| 4. 1.3 | 4. 13.2 | 4. 5,760 | 4. 2.8 |
| 5. 150,000 | 5. 2,010 | 5. 81,000 | 5. 20,000 |
| 6. 920 | 6. 50 | 6. 1,950 | 6. 2,600 |
| 7. 200 | 7. 32% | 7. 300 | 7. 125 |
| 8. $9.30 | 8. $60 | 8. $9.60 | 8. 16% |
| 9. $43.20 | 9. $642 | 9. $27.56 | 9. $9 |
| 11. $200 | 11. $49 | 11. $1,380 | 10. $32.40 |

Reminder:
Pop Quiz 8 is next week!

# Home School Partners
# Math Tips, Tricks & Mental Calculations – Week 10

| Day 1 | Day 2 | Day 3 | Day 4 |
|---|---|---|---|
| 1. 70,000 • 0.03 (3) _____ | 1. 8,000,000 ÷ 200 (2) _____ | 1. 30,000 • 0.009 (3) _____ | **Quiz 4!** Take Quiz 4! Remember, do not use a calculator! Perform all of the calculations *mentally*. |
| 2. Convert 1/6 to a decimal (to three digits) and a %. (4) _____ | 2. 440,000 ÷ 1.1 (2) _____ | 2. Convert .135 to a % and a fraction. (4) _____ | |
| 3. 66 • 3 (5) _____ | 3. 48 • 5 (5) _____ | 3. 29 • 5 (5) _____ | |
| 4. 6.6 • 3 (6) _____ | 4. 48 • 50 (6) _____ | 4. 2.9 • 500 (6) _____ | |
| 5. 40% of 800,000 (7) _____ | 5. 87% of 2,000 (8) _____ | 5. 20% of 200,000 (7) _____ | |
| 6. 58% of 4,000 (8) _____ | 6. 14% of what number is 280? (9) _____ | 6. 99% of 7,000 (8) _____ | |
| 7. 62% of what number is 31? (9) _____ | 7. 65 is what percent of 500? (9) _____ | 7. 21% of what number is 84? (9) _____ | |
| 8. How much is a 15% tip on a $22 bill? (10) _____ | 8. How much is a 15% tip on a $70 bill? (10) _____ | 8. How much is a 15% tip on a $44 bill? (10) _____ | |
| 9. Give the total cost of a $35 shirt if sales tax is 7%. (11) _____ | 9. What is the total cost of a $1200 bike if the sales tax is 5%? (11) _____ | 9. Give the total cost of a $45 book, including a 8% sales tax. (11) _____ | |
| 10. Calculate the price of an $80 cell phone on sale for 10% off. (12) _____ | 10. A haircut is $18, but you have a 20% off coupon. How much is the sale price? (12) _____ | 10. How much would a pair of $84 glasses be if the pair is discounted 30%? (12) _____ | |

**Math Tips, Tricks & Mental Calculations – Week 10 Key**

| Day 1 | Day 2 | Day 3 | Day 4 |
|---|---|---|---|
| 1. 2,100 | 1. 40,000 | 1. 270 | Check your Quiz 4 against the key! |
| 2. .166 (or .167), 16.7% | 2. 400,000 | 2. 13.5%, 27/200 | |
| 3. 198 | 3. 240 | 3. 145 | Reminder: Pop Quiz 9 is next week! |
| 4. 19.8 | 4. 2,400 | 4. 1,450 | |
| 5. 320,000 | 5. 1,740 | 5. 40,000 | |
| 6. 2,320 | 6. 2,000 | 6. 6,930 | |
| 7. 50 | 7. 13% | 7. 400 | |
| 8. $3.30 | 8. $10.50 | 8. $6.60 | |
| 9. $37.45 | 9. $1,260 | 9. $48.60 | |
| 10. $72 | 10. $14.40 | 10. $58.80 | |

# Home School Partners
# Math Tips, Tricks & Mental Calculations – Week 11

| Day 1 | Day 2 | Day 3 | Day 4 |
|---|---|---|---|
| 1. 8,000,000 • 0.02 (3) _____ | 1. 300,000 • 70 (1) _____ | 1. 40,000 • 0.0008 (3) _____ | 1. 300,000 • 100 (1) _____ |
| 2. Convert 22.5% to a decimal and a fraction. (4) _____ | 2. 800 • 0.12 (2) _____ | 2. Convert 57/80 to a decimal (to 4 places) and a %. (4) _____ | 2. 3.3 ÷ 30 (2) _____ |
| 3. 4.2 • 7 (6) _____ | 3. 96 • 5 (5) _____ | 3. 59 • 3 (5) _____ | 3. 84 • 4 (5) _____ |
| 4. 80% of 40,000 (7) _____ | 4. 96 • 50 (6) _____ | 4. 5.9 • 300 (6) _____ | 4. 84 • 0.4 (6) _____ |
| 5. 63% of 5,000 (8) _____ | 5. 71% of 6,000 (8) _____ | 5. 95% of 3,000 (8) _____ | 5. 31% of 5,000 (8) _____ |
| 6. 70% of what number is 84? (9) _____ | 6. 29 is what percent of 580? (9) _____ | 6. 18% of what number is 90? (9) _____ | 6. 30% of what number is 600? (9) _____ |
| 7. 26 is what percent of 130? (9) _____ | 7. How much is a 15% tip on a $50 bill? (10) _____ | 7. How much is a 15% tip on a $28 bill? (10) _____ | 7. 45 is what percent of 150? (9) _____ |
| 8. Give the total cost of a $9 book if sales tax is 6%. (11) _____ | 8. What is the total cost of a $140 table if sales tax is 4%? (11) _____ | 8. Give the total cost of a $29 watch, with a 5% sales tax. (11) _____ | 8. How much is a 15% tip on a $30 bill? (10) _____ |
| 9. Find the sale price of a $110 printer discounted 20%. (12) _____ | 9. How much is a shirt, originally $62, discounted 30%? (12) _____ | 9. A $44 pair of shoes is discounted 10%. How much are they now? (12) _____ | 9. What is the total cost of a $1200 bed, if sales tax is 4%? (11) _____ |
| 10. Find 2/5 of 60. (13) _____ | 10. Find 3/7 of 84. (13) _____ | 10. Find 5/12 of 72. (13) _____ | 10. Find the sale price of a $3,200 computer marked down 40%. (12) _____ |

**Math Tips, Tricks & Mental Calculations – Week 11 Key**

## Day 1

1. 160,000
2. .225, 9/40
3. 29.4
4. 32,000
5. 3,150
6. 120
7. 20%
8. $9.54
9. $88
10. 24

## Day 2

1. 21,000,000
2. 96
3. 480
4. 4,800
5. 4,260
6. 5%
7. $7.50
8. $145.60
9. $43.40
10. 36

## Day 3

1. 32
2. .7125, 71.25%
3. 177
4. 1,770
5. 2,850
6. 500
7. $4.20
8. $30.45
9. $39.60
10. 30

## Day 4

1. 30,000,000
2. 0.11
3. 336
4. 33.6
5. 1,550
6. 2,000
7. 30%
8. $4.50
9. $1,248
10. $1,920

Reminder:
Pop Quiz 10 is next week!

# Home School Partners
# Math Tips, Tricks & Mental Calculations – Week 12

| Day 1 | Day 2 | Day 3 | Day 4 |
|---|---|---|---|
| 1. 48 • 5; 48 ÷ 5 (14) _____ | 1. 700,000 • 70 (1) _____ | 1. 26 • 5; 26 ÷ 5 (14) _____ | **Quiz 5!** Take Quiz 5! Remember, do not use a calculator! Perform all of the calculations *mentally*. |
| 2. Find 7/10 of 80. (13) _____ | 2. 1,200 • 0.9 (2) _____ | 2. Find 3/8 of 96. (13) _____ | |
| 3. Find the new price of a $400 door marked down 28%. (12) _____ | 3. Convert .875 to a % and a fraction (4) _____ | 3. Find the new price of a $60 pair of shoes discounted 26%. (12) _____ | |
| 4. What is the total cost of a $320 bench if sales tax is 6%? (11) _____ | 4. 47% of 3,000 (8) _____ | 4. What is the total cost of a $3,000 car if the sales tax is 7%? (11) _____ | |
| 5. How much is a 15% tip on a $36 bill? (10) _____ | 5. 75 is what percent of 1,500? (9) _____ | 5. How much is a 15% tip on a $22 bill? (10) _____ | |
| 6. 23 is what percent of 460? (9) _____ | 6. 48 is 40 percent of what number? (9) _____ | 6. 24 is what percent of 600? (9) _____ | |
| 7. 40% of what number is 104? (9) _____ | 7. What is the total cost of a $700 stereo if sales tax is 5%? (11) _____ | 7. 30% of what number is 2,400? (9) _____ | |
| 8. 34% of 6,000 (8) _____ | 8. Find the price of a $4000 car if it's on sale at 18% off. (12) _____ | 8. 23% of 8,000 (8) _____ | |
| 9. 30% of 400 (7) _____ | 9. Find 8/11 of 99. (13) _____ | 9. 60% of 300 (7) _____ | |
| 10. 8.6 • 200 (6) _____ | 10. 62 • 5; 62 ÷ 5 (14) _____ | 10. 5.4 • 300 (6) _____ | |

**Math Tips, Tricks & Mental Calculations – Week 12 Key**

| Day 1 | Day 2 | Day 3 | Day 4 |
|---|---|---|---|
| 1. 240; 9.6 | 1. 49,000,000 | 1. 130; 5.2 | Check your Quiz 5 against the key! |
| 2. 56 | 2. 1,080 | 2. 36 | |
| 3. $288 | 3. 87.5%, 7/8 | 3. $44.40 | Reminder: Pop Quiz 11 is next week! |
| 4. $339.20 | 4. 1,410 | 4. $3,210 | |
| 5. $5.40 | 5. 5% | 5. $3.30 | |
| 6. 5% | 6. 120 | 6. 4% | |
| 7. 260 | 7. $735 | 7. 8,000 | |
| 8. 2,040 | 8. $3280 | 8. 1,840 | |
| 9. 120 | 9. 72 | 9. 180 | |
| 10. 1,720 | 10. 310; 12.4 | 10. 1,620 | |

# Home School Partners
# Math Tips, Tricks & Mental Calculations – Week 13

| Day 1 | Day 2 | Day 3 | Day 4 |
|-------|-------|-------|-------|
| 1. 54 • 5; 54 ÷ 5 (14) _____ | 1. 1,200,000 • 120 (1) _____ | 1. 66 • 5; 66 ÷ 5 (14) _____ | 1. 2,000,000 • 80 (1) _____ |
| 2. Find 2/7 of 56. (13) _____ | 2. 1,100 • 0.4 (2) _____ | 2. Find 7/8 of 64. (13) _____ | 2. 1,200 • 1.1 (2) _____ |
| 3. Find the price of a $20 candy bar discounted 12%. (12) _____ | 3. Convert .85 to a % and a fraction (4) _____ | 3. How much is a $640 computer discounted 30%? (12) _____ | 3. Convert .425 to a % and a fraction (4) _____ |
| 4. What is the total cost of a $500 TV if sales tax is 8%? (11) _____ | 4. 29% of 3,000 (8) _____ | 4. What is the total cost of $2,500 braces if sales tax is 5%? (11) _____ | 4. 76% of 5,000 (8) _____ |
| 5. How much is a 15% tip on a $90 bill? (10) _____ | 5. 55 is what percent of 1,100? (9) _____ | 5. How much is a 15% tip on a $48 bill? (10) _____ | 5. 75 is what percent of 120? (10) _____ |
| 6. 90 is what percent of 3,000? (9) _____ | 6. 210 is 60 percent of what number? (9) _____ | 6. 60 is what percent of 4,800? (9) _____ | 6. 48 is 15 percent of what number? (10) _____ |
| 7. 45% of what number is 180? (9) _____ | 7. What is the total cost of a $34 jacket, with sales tax of 6%? (11) _____ | 7. 80% of what number is 2,800? (9) _____ | 7. What is the total cost of $25 glasses if sales tax is 7%? (11) _____ |
| 8. 77% of 5,000 (8) _____ | 8. You get 80% off a $42 turkey. What is the sale price? (12) _____ | 8. 43% of 6,000 (8) _____ | 8. A $30 pair of jeans is marked down 45%. How much are the jeans? (12) _____ |
| 9. 20% of 9,000 (7) _____ | 9. Find 5/6 of 72. (13) _____ | 9. 20% of 70,000 (7) _____ | 9. Find 5/7 of 63. (13) _____ |
| 10. 9.4 • 300 (6) _____ | 10. 74 • 5; 74 ÷ 5 _____ | 10. 8.5 • 400 (6) _____ | 10. 82 • 5; 82 ÷ 5 (14) _____ |

**Math Tips, Tricks & Mental Calculations – Week 13 Key**

## Day 1

1.  270; 10.8
2.  16
3.  $17.60
4.  $540
5.  $13.50
6.  3%
7.  400
8.  3,850
9.  1,800
10. 2,820

## Day 2

1.  144,000,000
2.  440
3.  85%, 17/20
4.  870
5.  5%
6.  350
7.  $36.04
8.  $8.40
9.  60
10. 370; 14.8

## Day 3

1.  330; 13.2
2.  56
3.  $448
4.  $2,625
5.  $7.20
6.  1.25%
7.  3,500
8.  2,580
9.  14,000
10. 3,400

## Day 4

1.  160,000,000
2.  1,320
3.  42.5%, 17/40
4.  3,800
5.  62.5%
6.  320
7.  $26.75
8.  $16.50
9.  45
10. 410; 16.4

Reminder: Quiz 6 (Final)
is next week!