A Million Dollars

This problem gives you the chance to:
• perform calculations with real data and use proportion

In all these tasks you should show your calculations and give your answers to the nearest whole number.

1. How many $3.50 burgers can you buy for a million dollars?

$$\frac{1,000,000}{3.50} = 285,714$$

2. How many years does it take to earn a million dollars if you are paid $30 an hour and work 35 hours a week for 50 weeks a year?

$$30 \times 35 \times 50 = 52,500$$

$$\frac{1,000,000}{52,500} = 19$$ years

3. A dollar bill weighs one gram. How many pounds do one million dollar bills weigh? (1000 grams is equal to 1 kilogram and 1 kilogram is equal to about 2.205 pounds.)

$$1 \times 1,000,000 = 1,000,000$$

$$\frac{1,000,000}{1000} = 1,000$$

$$1,000 \times 2.205 = 2,205$$ pounds

4. A dollar bill is 0.0043 inches thick. How many yards high is a pile of a million $1 bills?

$$0.0043 \times 1,000,000 = 4300$$

$$\frac{4300}{36} = 119.44$$ yards
A Million Dollars

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• perform calculations with real data and use proportion

In all these tasks you should show your calculations and give your answers to the nearest whole number.

1. How many $3.50 burgers can you buy for a million dollars?

\[ \frac{285,714.28}{3.5} \approx 1,000,000 \]  

2. How many years does it take to earn a million dollars if you are paid $30 an hour and work 35 hours a week for 50 weeks a year?

\[ 30 \times 35 = 1050 \text{ a week} \]
\[ 1050 \times 50 = 52,500 \text{ a year} \]
\[ \frac{52,500}{1,000,000} \approx 0.019 \text{ years} \]

3. A dollar bill weighs one gram. How many pounds do one million dollar bills weigh? (1000 grams is equal to 1 kilogram and 1 kilogram is equal to about 2.205 pounds.)

\[ \frac{1000}{1000,000} = 0.001 \]
\[ 0.001 \times 2.205 = 0.002205 \text{ pounds} \]

4. A dollar bill is 0.0043 inches thick. How many yards high is a pile of a million $1 bills?

\[ \frac{0.0043 \times 1,000,000}{12} = \frac{4300}{12} \approx 358.33 \text{ inches} \]

\[ 358.33 \text{ inches} \approx 119.44 \text{ yards} \]
A Million Dollars

This problem gives you the chance to:
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In all these tasks you should show your calculations and give your answers to the nearest whole number.

1. How many $3.50 burgers can you buy for a million dollars?

\[
\begin{align*}
3.5 & \mid 1,000,000 \\
285714 & \checkmark
\end{align*}
\]

2. How many years does it take to earn a million dollars if you are paid $30 an hour and work 35 hours a week for 50 weeks a year?

\[
\begin{align*}
\frac{35}{30} & \mid \frac{1250}{5250} \\
19 & \checkmark
\end{align*}
\]

3. A dollar bill weighs one gram. How many pounds do one million dollar bills weigh? (1000 grams is equal to 1 kilogram and 1 kilogram is equal to about 2.205 pounds.)

\[
\begin{align*}
2205 & \mid 1000 \\
453.5 & \checkmark
\end{align*}
\]

4. A dollar bill is 0.0043 inches thick. How many yards high is a pile of a million $1 bills?

\[
\begin{align*}
30 & \mid 0.000000 \\
119 & \checkmark
\end{align*}
\]
A Million Dollars

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• perform calculations with real data and use proportion

In all these tasks you should show your calculations and give your answers to the nearest whole number.
1. How many $3.50 burgers can you buy for a million dollars?

\[ \frac{2,857,142,857}{3,500,000} \approx 829 \]

2. How many years does it take to earn a million dollars if you are paid $30 an hour and work 35 hours a week for 50 weeks a year?

\[ \frac{30 \times 35}{900} \times 50 = 125,000 \]

\[ \frac{125,000,000}{52,000,000} \approx 2.4 \]

about 19

3. A dollar bill weighs one gram. How many pounds do one million dollar bills weigh? (1000 grams is equal to 1 kilogram and 1 kilogram is equal to about 2.205 pounds.)

\[ 1,000,000 \times 1 \approx 2.205 \times 1000 \]

2,205 100

4. A dollar bill is 0.0043 inches thick. How many yards high is a pile of a million $1 bills?

\[ 0.0043 \times 1,000,000 = 4,300 \]

\[ \frac{4,300}{36} = 119.4444 \]

\[ 4 \]

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A Million Dollars

This problem gives you the chance to:
• perform calculations with real data and use proportion

In all these tasks you should show your calculations and give your answers to the nearest whole number.

1. How many $3.50 burgers can you buy for a million dollars?

\[ \frac{1,000,000}{3.50} = \frac{2,857.14}{1} \text{ burgers} \]

2. How many years does it take to earn a million dollars if you are paid $30 an hour and work 35 hours a week for 50 weeks a year?

\[ \frac{1,000,000}{30} = \frac{35,000,000}{1} \text{ years} \]

3. A dollar bill weighs one gram. How many pounds do one million dollar bills weigh? (1000 grams is equal to 1 kilogram and 1 kilogram is equal to about 2.205 pounds.)

\[ \frac{1,000,000}{1,000,000} = \frac{1,000,000}{1} \text{ grams} \]

\[ \frac{1,000,000}{1,000,000} \times 4.41 \text{ lb} \approx 4.41 \text{ lb} \]

4. A dollar bill is 0.0043 inches thick. How many yards high is a pile of a million $1 bills?

\[ \frac{1,000,000}{1} \times 0.0043 \text{ inches} \approx 4.3 \text{ yards} \]
A Million Dollars

This problem gives you the chance to:
- perform calculations with real data and use proportion

In all these tasks you should show your calculations and give your answers to the nearest whole number.

1. How many $3.50 burgers can you buy for a million dollars?

\[
\frac{3.50}{1} = \frac{1}{x} \quad \text{[2857]x} \checkmark
\]

2. How many years does it take to earn a million dollars if you are paid $30 an hour and work 35 hours a week for 50 weeks a year?

\[
\frac{30}{x} = \frac{1}{50} \quad \text{[52500]} \checkmark
\]

3. A dollar bill weighs one gram. How many pounds do one million dollar bills weigh? (1000 grams is equal to 1 kilogram and 1 kilogram is equal to about 2.205 pounds.)

\[
\frac{1}{1000} = \frac{2.205}{x} \quad \text{[2.205]} \checkmark
\]

4. A dollar bill is 0.0043 inches thick. How many yards high is a pile of a million $1 bills?

\[
\frac{1}{x} = \frac{36}{4800} \quad \text{[119]} \checkmark
\]
A Million Dollars

This problem gives you the chance to:
• perform calculations with real data and use proportion

In all these tasks you should show your calculations and give your answers to the nearest whole number.

1. How many $3.50 burgers can you buy for a million dollars?

\[ \frac{3.50 \times 1,000,000}{1} \]

2. How many years does it take to earn a million dollars if you are paid $30 an hour and work 35 hours a week for 50 weeks a year?

\[ \frac{30 \times 35 \times 50}{10000} = \frac{5250}{30000} \times \]

3. A dollar bill weighs one gram. How many pounds do one million dollar bills weigh? (1000 grams is equal to 1 kilogram and 1 kilogram is equal to about 2.205 pounds.)

\[ 2.205 \times 1000 \]

4. A dollar bill is 0.0043 inches thick. How many yards high is a pile of a million $1 bills?

\[ \times 0 \]
Boxes

This problem gives you the chance to:
• interpret 2D representations of 3D shapes
• calculate volumes including triangular sections

Each of the two shapes shown below could be cut out and folded up to make a solid box.

Shape A

Shape B  (The height of the triangle is 1.7 cm)

1. Which of the boxes has the bigger surface area?
   Show how you figured it out.
A Million Dollars

This problem gives you the chance to:
• perform calculations with real data and use proportion

In all these tasks you should show your calculations and give your answers to the nearest whole number.
1. How many $3.50 burgers can you buy for a million dollars?

\[ 1,000,000 \div 3.50 = 285,714 \]

2. How many years does it take to earn a million dollars if you are paid $30 an hour and work 35 hours a week for 50 weeks a year?

\[ 35 \times 30 = 1050 \]
\[ 1050 \times 60 = 63,000 \]
\[ 1,000,000 \div 63,000 = 19.04 \]

about 19 years

3. A dollar bill weighs one gram. How many pounds do one million dollar bills weigh? (1000 grams is equal to 1 kilogram and 1 kilogram is equal to about 2.205 pounds.)

\[ 1 \times 1,000,000 = 1,000,000 \div 1000 = 1000 \]
\[ 1000 \times 2.205 = 2205 \]

220.5 pounds

4. A dollar bill is 0.0043 inches thick. How many yards high is a pile of a million $1 bills?

\[ 4300 \div 36 = 119.44 \]
\[ 0.0043 \times 1,000,000 = 4300 \]

119 yards tall
Boxes

This problem gives you the chance to:
• interpret 2D representations of 3D shapes
• calculate volumes including triangular sections

Each of the two shapes shown below could be cut out and folded up to make a solid box.

Shape A

1. Which of the boxes has the bigger surface area? Show how you figured it out.

\[ l = 12 \]
\[ w = 2 \]
\[ h = 1 \]
A Million Dollars

This problem gives you the chance to:
• perform calculations with real data and use proportion

In all these tasks you should show your calculations and give your answers to the nearest whole number.
1. How many $3.50 burgers can you buy for a million dollars?

\[
\frac{1,000,000}{3.50} \geq 285,714
\]

2. How many years does it take to earn a million dollars if you are paid $30 an hour and work 35 hours a week for 50 weeks a year?

\[
\frac{1000000}{30 \times 35 \times 50} = \frac{19}{1250} \text{ years}
\]

3. A dollar bill weighs one gram. How many pounds do one million dollar bills weigh? (1000 grams is equal to 1 kilogram and 1 kilogram is equal to about 2.205 pounds.)

\[
1000 \times \frac{2.205}{1000} = 2.205 \text{ pounds}
\]

4. A dollar bill is 0.0043 inches thick. How many yards high is a pile of a million $1 bills?

\[
\frac{4300}{\frac{1}{4}} = 17200 \text{ yards}
\]
A Million Dollars

This problem gives you the chance to:
• perform calculations with real data and use proportion

In all these tasks you should show your calculations and give your answers to the nearest whole number.

1. How many $3.50 burgers can you buy for a million dollars?

\[
1,000,000 \div 3.50 = 285,714.28
\]

2. How many years does it take to earn a million dollars if you are paid $30 an hour and work 35 hours a week for 50 weeks a year?

\[
\begin{align*}
30 \cdot 35 &= 1050 \\
1050 \cdot 50 &= 52,500 \\
1,000,000 \div 52,500 &= 19.04
\end{align*}
\]

3. A dollar bill weighs one gram. How many pounds do one million dollar bills weigh? (1000 grams is equal to 1 kilogram and 1 kilogram is equal to about 2.205 pounds.)

\[
1,000,000 \div 1000 = 1000 \\
2.205 \cdot 1000 = 2205
\]

4. A dollar bill is 0.0043 inches thick. How many yards high is a pile of a million $1 bills?

\[
\begin{align*}
1,000,000 \cdot 0.0043 &= 4300 \\
4300 \div 3 &= 1433.33
\end{align*}
\]
A Million Dollars

This problem gives you the chance to:
- perform calculations with real data and use proportion

In all these tasks you should show your calculations and give your answers to the nearest whole number.

1. How many $3.50 burgers can you buy for a million dollars?

\[ \frac{1,000,000}{3.5} \]

2. How many years does it take to earn a million dollars if you are paid $30 an hour and work 35 hours a week for 50 weeks a year?

\[ 30 \times 35 \times 50 = 52,500 \]

\[ \frac{1,000,000}{52,500} \]

about 19 years

3. A dollar bill weighs one gram. How many pounds do one million dollar bills weigh? (1000 grams is equal to 1 kilogram and 1 kilogram is equal to about 2.205 pounds.)

about 2205 pounds

4. A dollar bill is 0.0043 inches thick. How many yards high is a pile of a million $1 bills?

about 1433 yards high
A Million Dollars

This problem gives you the chance to:
• perform calculations with real data and use proportion

In all these tasks you should show your calculations and give your answers to the nearest whole number.

1. How many $3.50 burgers can you buy for a million dollars?

\[
1,000,000 \div 3.5 = 285,714 \text{ burgers}
\]

2. How many years does it take to earn a million dollars if you are paid $30 an hour and work 35 hours a week for 50 weeks a year?

\[
52,500 \text{ a year}
\]

\[
1,000,000 \div 52,500 = 19 \text{ years}
\]

3. A dollar bill weighs one gram. How many pounds do one million dollar bills weigh? (1000 grams is equal to 1 kilogram and 1 kilogram is equal to about 2.205 pounds.)

\[
1,000,000 \div 1,000 = 2,205
\]

\[
2,205 \text{ pounds}
\]

4. A dollar bill is 0.0043 inches thick. How many yards high is a pile of a million $1 bills?

\[
4300 \text{ in} \div 12 = 358.33 \text{ ft}
\]

\[
358.33 \div 3 = 119.44 \text{ yd}
\]

\[
119.4 \text{ yd}
\]
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• perform calculations with real data and use proportion

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1. How many $3.50 burgers can you buy for a million dollars?

\[ \frac{1,000,000}{3.50} = 285,714 \]

2. How many years does it take to earn a million dollars if you are paid $30 an hour and work 35 hours a week for 50 weeks a year?

\[ 50 \times 35 = 1750 \times 30 = 52,500 \]
\[ \frac{1,000,000}{52,500} = 19 \text{ years} \]

3. A dollar bill weighs one gram. How many pounds do one million dollar bills weigh? (1000 grams is equal to 1 kilogram and 1 kilogram is equal to about 2.205 pounds.)

\[ \frac{1,000,000}{1,000} = 1,000 \text{ kilograms} \]
\[ 2.205 \times 1,000 = 2,205 \text{ pounds} \]

4. A dollar bill is 0.0043 inches thick. How many yards high is a pile of a million $1 bills?

\[ 1,000,000 \times 0.0043 = 4,300 \text{ inches} \]
\[ 4,300 \div 36 = 119 \text{ inches} \]