



What is Three for Free?

Three for Free is a set of three math problems on one subject that you can try on your own.

The answers are all worked out on a separate page so that you can check your work when you're done.

If you missed something, you can probably find your mistake by looking more closely at the worked out Answer Key.

Let me know if you found this helpful! I'd love to hear from you. Email me at mrskennedy@algebrastudent.com.

Your Three for Free:

1. $(x^4 + x^2) \div (x - 2)$

2. $(3x^2 - 4 + x^3) \div (x - 1)$

3. $(2x^2 + 7x - 15) \div (x + 5)$

ANSWER KEY

Your Three for Free:

1. $(x^4 + x^2) \div (x-2)$
 $+0x^3 + 0x + 0$

$$\begin{array}{r|rrrrr} 2 & 1 & 0 & 1 & 0 & 0 \\ & \downarrow & 2 & 4 & 10 & 20 \\ \hline & 1 & 2 & 5 & 10 & 20 \end{array}$$

$$= \boxed{x^3 + 2x^2 + 5x + 10 + \frac{20}{x-2}}$$

2. $(3x^2 - 4 + x^3) \div (x-1)$
 $x^3 + 3x^2 + 0x - 4$

$$\begin{array}{r|rrrr} 1 & 1 & 3 & 0 & -4 \\ & \downarrow & 1 & 4 & 4 \\ \hline & 1 & 4 & 4 & 0 \checkmark \end{array}$$

$$= \boxed{x^2 + 4x + 4}$$

3. $(2x^2 + 7x - 15) \div (x+5)$

$$= \boxed{2x - 3}$$

$$\begin{array}{r|rrr} -5 & 2 & 7 & -15 \\ & \downarrow & -10 & 15 \\ \hline & 2 & -3 & 0 \checkmark \end{array}$$